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Maintenance of Reserve Components in a Volunteer Environment

Volume III

Appendix B: Phase II

by W. L. Clement
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13. ABSTRACT This appendix contains a detailed evaluation of a number of alternative proposals that may improve US Army Reserve Component procurement and retention of personnel in a volunteer environment. Thirty-two such proposals are discussed including an enlistment/reenlistment bonus, improved medical benefits, low cost life insurance, increased domestic action programs and greater freedom in personal appearance. Attractiveness is predicted using the results of an attitudinal survey of Reserve Component enlisted men. The discussion of each proposal includes status in and impact of implementation on the Active Army, present status in the Reserve Components, probable net cost and cost effectiveness, legislation required, and social and political implications of the proposal.		

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FOREWORD

This report documents the work completed for the study, "Maintenance of Reserve Components in a Volunteer Environment," conducted for the Office of Reserve Components by Research Analysis Corporation.

The objective of the study is to provide the Department of the Army with a basis for making decisions concerning the composition of the program required to procure and retain personnel in the Reserve Components (RC) in a zero-draft environment, to respond to future Office of the Secretary of Defense initiative in this area, and to provide the in-depth analysis of the problem required for the FY74-FY78 Program Objective Memorandum (POM) cycle.

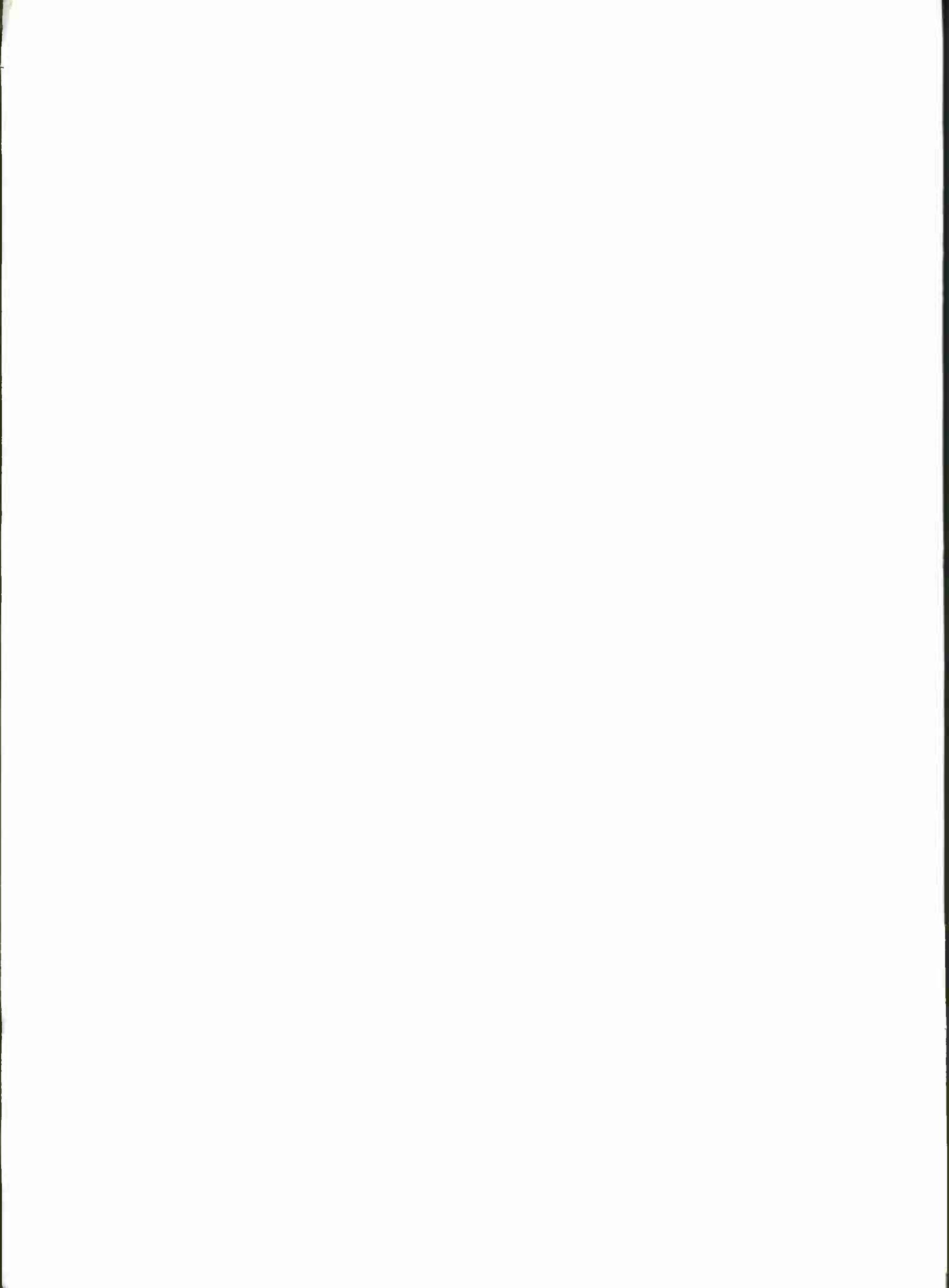
Phase I of the study encompasses the determination of the factors that influence enlistment and retention in the RC.

Phase II evaluates alternative proposals that may contribute to procurement and retention, determines the interrelation between proposals; and recommends additional tests required to evaluate the effectiveness of proposals for which data are not presently available.

Phase III develops the least-cost procurement and retention program that can be expected to maintain current strength levels and two lower strength levels. This phase of the study identifies the sensitivity of the study conclusions to changes in assumptions and attitudes. It further identifies requirements for follow-on surveys or research to provide data needed to adjust the program in response to changes in attitude.

This volume, Appendix B, presents in detail the findings and accomplishments of the task group in response to the Phase II requirements.

Albert D. Tholen
Head, Resource Analysis Department



CONTENTS

Foreword	iii
Summary	
Problem (S-1)—Scope (S-1)—Task 1—Evaluation of Alternative Proposals (S-3)—Task 2—Interrelations between Proposals (S-9)—Task 3—Additional Tests/ Programs Required (S-9)	S-1
Abbreviations	AB-1
1. Evaluation of Recruitment and Retention Proposals (Task 1)	1-1
Introduction	1-1
A. Analysis of Survey Data	1-2
Survey of Sixth-Year RC Personnel	1-2
Purpose of Survey (1-2)—Relevant Statistical Measures (1-3)—Population Sample (1-5)—Results (1-10)—Satis- faction and Importance of Aspects of RC Service (1-18)— Potential for Reenlistment without Additional Incentives (1-22)—Economic Incentives (1-27)—Noneconomic Incentives (1-29)—Additional Questions (1-33)—Sensitivity of Results (1-41)	
Survey of First-Year RC Personnel	1-45
Biographical Information (1-45)—Satisfaction and Importance of Various Aspects of RC Service (1-51)— Motivation for RC Service (1-52)—Economic Incentives toward Enlistment in RC (1-58)—Noneconomic Incentives to Enlistment (1-62)—Additional Questions (1-62)	
Attitude of Active Army Personnel toward Potential Incentives	1-66
B. Analysis of Proposals	1-71
Introduction (1-71)—Increased Pay (1-76)—Reenlistment Bonus (1-81)—No Loss of Income during Annual Training (1-85)—Educational Benefits (1-88)—Servicemen's Group Life Insurance (1-92)—Retirement Benefits (1-96)— Medical and Dental Benefits (1-100)—Home Loans (1-108)—	

Proficiency Pay (1-110)—Federal Income Tax Exemptions (1-113)—Community Domestic Action Programs (1-115)—Image (1-119)—Utilization of Skills (1-123)—Extra-Military Activities Involving Families (1-126)—Freedom in Personal Appearance (1-128)—Improved Opportunity for Advancement (1-131)—Accept Greater Responsibility for Families (1-136)—Career Counseling Program (1-140)—More Effective Leadership (1-142)—Changes in Assembly and Annual Training Policy (1-145)—Integration into Active Army Units (1-148)—Improved Training (1-150)—Greater Number of WAC in the RC (1-153)—Adjustments of Benefits and Obligations—IRR (1-156)—Increase Recruiting from Active Army (1-158)—Reserve Component Information Program (1-160)—Standby Draft for RC (1-162)—Reserve Component Enlistment Options (1-167)—Enlistment Bonus (1-170)—Post Exchange and Commissary Privileges (1-173)—Winter Annual Training (1-177)—Reserve Service Obligation Clause (1-179)

C.	Cost Analysis of Incentive Proposals	1-181
	Incentive Proposal Net Costs (1-181)—Cost Effectiveness (1-184)	
2.	Interrelations of Proposals (Task 2)	2-1
	Incentive Interaction (2-1)	
3.	Recommendations for Additional Tests (Task 3)	3-1
Annexes		
	B1. RAC Surveys	B1-1
	B2. Cost Factors	B2-1
	B3. Probability Composition Formula Derivation	B3-1
	B4. Factor Analysis	B4-1
Figures		
1-1.	Relation of Mean Satisfaction and Importance Values for Various Aspects of RC Service (ARNG and USAR Units Combined)	1-21
1-2.	Relation between Probability Scale and Five-Alternative Scale in Assessing Reenlistment Probability	1-26
1-3.	Contrast of Distribution for ARNG under Three Conditions	1-31
1-4.	Relation of Mean Satisfaction and Importance Values for Various Aspects of RC Service (ARNG and USAR Units Combined)	1-54
1-5.	Relation between Probability Scale and Five-Alternative Scale in Assessing Reenlistment Probability	1-57
1-6.	Types of Unit Training Assemblies	1-146
2-1.	Frequency of Different Multiple Choice Responses to Question D12	2-2

Tables

1-1.	Distribution of Original Sample, by Region of the US	1-7
1-2.	Sample (Survey of Sixth-Year Personnel)	1-8
1-3.	Distribution of Net Usable Sample	1-9
1-4.	Percentage Distribution of Responses to Part A, Back-ground Information	1-11
1-5.	Mean Satisfaction and Importance Values for RC Service	1-20
1-6.	Percentage Distribution of Responses for Probability of Reenlisting without Additional Incentives	1-23
1-7.	Percentage Distribution of Responses for Intention to Reenlist in RC	1-25
1-8.	Mean Probability of Reenlistment for Various Incentives	1-28
1-9.	Mean Net Gains in Reenlistment Probability for Economic and Noneconomic Incentives	1-30
1-10.	Percentage Choosing Each Other-than-Economic Incentive	1-32
1-11.	Reserve Component Category Preferred if All Incentive Packages in Force	1-34
1-12.	Estimate of Fair Yearly Bonus	1-36
1-13.	Percent Denied Benefits because of RC Affiliation	1-37
1-14.	Civilian Employer's Leave Policy for AT	1-37
1-15.	Voluntary Entry into Military Service	1-38
1-16.	Primary Reason for Entry into ARNG or USAR	1-39
1-17.	Encouragement of Friends to Enlist in RC	1-40
1-18.	Percentage Distribution of Responses to Part A, Back-ground Information	1-47
1-19.	Mean Satisfaction and Importance Values for RC Service	1-53
1-20.	Percentage Distribution of Responses to Probability of Enlistment and Reenlistment without Additional Incentives	1-56
1-21.	Percentage Distribution of Responses to 5-Alternative Enlistment Question	1-56
1-22.	Probability of Enlistment for Varying Inducements	1-59
1-23.	Mean Net Gain in Enlistment Probabilities as Related to Various Inducements	1-61
1-24.	Proportion Choosing Various Noneconomic Incentives as Being Important	1-63
1-25.	Percentage Distribution of Responses - Probability of Original Enlistment Assuming No Draft	1-65
1-26.	Percentage Distribution of Responses - Encouragement of Friends to Join RC	1-65
1-27.	Potential of Active Army Personnel for Enlistment in RC	1-67
1-28.	Attitude of Active Army Personnel toward Joining RC	1-69
1-29.	Typical Average Pay	1-78
1-30.	Salary Level for Grades E-4 and E-5	1-78
1-31.	Probability of Reenlistment, by Educational Level	1-90
1-32.	Educational Level of ARNG and USAR Units and IRR Personnel	1-90
1-33.	Reserve Components in Paid Status, End of FY71	1-102
1-34.	Comparative Analysis of Medical Care and Related Benefits	1-105
1-35.	Table of Authorities	1-106
1-36.	Age Groups	1-130

1-37.	Time in Service for Officers upon Promotion in Selected Fiscal Years	1-132
1-38.	Time in Grade for Officers upon Promotion in Selected Fiscal Years	1-132
1-39.	Average Time in Service for Enlisted Men upon Promotion in Selected Fiscal Years	1-133
1-40.	Promotions Authorized to Grades E-7 and E-6 in FY70 and FY71	1-133
1-41.	Glossary of Definitions	1-182
1-42.	Gross and Net Costs	1-185
1-43.	Savings per Reenlistee	1-186
1-44.	Cost Effectiveness Rankings	1-189
1-45.	Incremental Enlisted Force Cost per Incentive	1-191
2-1.	ARNG Correlation Coefficient Matrix	2-4
2-2.	USAR Correlation Coefficient Matrix	2-5
2-3.	IRR Correlation Coefficient Matrix	2-6

SUMMARY

PROBLEM

To provide the Department of the Army with a basis for making decisions concerning the composition of the program required to procure and retain personnel in the Reserve Components in a zero-draft environment, to enable the Army to respond to future OSD initiatives in this area, and to provide the in-depth selected analysis of the problem required for the FY 74-78 POM cycle.¹

SCOPE

The objective of this study is to assist the Reserve Components (RC) in attracting and retaining quality personnel in a zero-draft environment. This Appendix contains the documentation of research undertaken during Phase II. In this phase thirty-two proposals that might be effective in procuring and retaining such personnel were chosen for in-depth analysis. The principal source of new data was a survey of sixth-year personnel. Other research included status of each proposal in the Active Army, the possible legislation required, and the political and social implications of each proposal. Analyses of cost, cost effectiveness, and interrelations of proposal costs were made. Areas for future tests or programs were identified. Phase II was tasked as follows:

Task 1

Evaluate each alternative proposal identified in Phase I to determine:

(a) The results that can be expected from implementation of the proposal. These results will be determined in part by analyses of the findings of the RC personnel survey initiated in Phase I and the Gilbert Youth Attitude Survey. Additional input will be provided by the findings

of the Phase I analysis of other studies and the current and historical experience of the Army, the other US Armed Services, and foreign countries.

(b) The impact, if any, that implementation of the proposal would have on Active Army procurement and retention of personnel.

(c) The net costs (one-time and annual) of the proposal. Net costs will be developed considering new costs such as the cost of an incentive and costs avoided such as reduced training costs. To the extent possible, standard Army budgetary cost categories will be used.

(d) The cost effectiveness of the proposal.

(e) Requirements for new legislation.

(f) Political and social implications, if any.

(g) The sensitivity of the preceding analysis to changes in assumptions and changes in attitudes of the survey populations (RC unit, IRR, and civilian personnel).

Task 2

Determine the interrelations between proposals, identifying the impact that the adoption of each proposal or combination of reinforcing proposals would have on the gains and costs associated with each other proposal.

Task 3

Define the scope of additional tests required to evaluate the effectiveness of proposals that cannot be shown to be cost effective with available data.

Assumptions

(a) Emphasis in the study is on enlisted reservists.

(b) The time frame for a zero-draft environment will be from July 1973 on.

(c) Large-scale participation of the US Army (USA) in combat in Vietnam will have been ended by July 1973 and that, at least from that date and in the foreseeable future, the US will be in essentially a peacetime situation but with the threat of limited conflict.

(d) Some change in organization in the present structure of the RC may be effected to complement a zero-draft Army.

(e) The mandated strength of the RC in the Volunteer Army era will to 660,000 in units [Army National Guard (ARNG) - 400,000; US Army Reserve (USAR) - 260,000], and the planned strength of the IRR will be 656,000.

(f) The current program for upgrading the RC will continue as planned.

(g) The present geographic distribution of RC personnel throughout the US will not change appreciably in a zero-draft environment.

TASK 1—EVALUATION OF ALTERNATIVE PROPOSALS

Survey Results

Sample. The survey was administered in December 1971 to a probability sample of 4752 RC members drawn from a population of 524,000 who were in the sixth year of their RC obligation. For convenience in drawing, the sample was divided into five categories: ARNG units (2.2 percent of ARNG sixth-year personnel), USAR units (2.5 percent), Annual Training Control Group (ATCG) (7.1 percent), Reinforcement Control Group (RCG) (2.4 percent), and the Standby Reserve (Stby) (0.3 percent). The total net sample of 4752 excluded surveys not deliverable because of improper address and those completed by Federal technicians serving with ARNG and USAR units. The rate of return across all categories was 43 percent, with USAR and ARNG units having the highest rates—51 and 50 percent, respectively. After the returns not usable were discarded, a total of 1785 returns were analyzed. Returns are shown in the analysis to be proportional to the regions of the nation to which surveys were sent. There is, however, a statistically significant difference among the rates of return for the five RC categories.

Background Information. The survey collected various elements of background information on each respondent. The results indicate that there are significant differences among RC categories with respect to education, income, employment level, and race; for example, USAR unit personnel have a significantly higher educational level than men in ARNG units or Stby, which in turn have higher levels than the two Control Groups. Additionally, the annual income of USAR unit personnel averaged about \$9600 as contrasted with \$8200 for ARNG unit personnel, and \$6000 to \$7000 for the other three groups. Further, the employment level of USAR unit personnel was significantly higher than that for the other four groups, with 25 percent occupying professional- or managerial-type jobs (as contrasted with 3 to 12 percent for the other RC categories); the RCG had generally the lowest occupational level. The returns indicate a very small proportion of other than Caucasians in ARNG and USAR

units, and a disproportionately small return of Negro responses from the Control Groups and Stby.

Economic Incentives. Ten economic incentives were examined in terms of their attractiveness in encouraging reenlistment in the RC. The incentives in their order of preferences by ARNG and USAR unit personnel and the mean net gains in reenlistment probability—(mean reenlistment probability for the incentive minus the mean probability of reenlistment without any additional incentives)—are as follows:

Incentive in rank order of preference	Mean net gains in reenlistment probability	
	ARNG units	USAR units
D7, Medical and dental benefits	0.31	0.27
D10, \$1250 Federal income tax exemption	0.29	0.27
D8, Guaranteed home loan	0.26	0.25
D1, Significant increase in pay	0.24	0.20
D6, Improved retirement benefits	0.22	0.18
D9, Proficiency pay	0.15	0.15
D4, Educational benefits	0.13	0.13
D2, \$500 reenlistment bonus	0.13	0.10
D3, No loss of income during annual training (AT)	0.13	0.08
D5, Low cost SGLI, full coverage	0.08	0.08

The order changed somewhat for those persons in the Control Groups and Stby, with retirement benefits and SGLI coverage being more attractive for these groups and with pay being less so.

A package of two or three of the most favored economic incentives resulted in a net gain in reenlistment probability of 0.41 and 0.45 for the USAR and ARNG units.

Noneconomic Incentives. Fifteen inducements toward reenlistment, not particularly economic in nature, were also evaluated in terms of their attractiveness. The rank order in attractiveness of the eight incentives most important to RC unit personnel is as follows:

- E1—Increased unit activity in community affairs
- E5—Relaxation of personal appearance and grooming standards
- E3—Better utilization of skills in RC
- E7—Greater concern for family of RC members

E6—Improved opportunity for advancement

E9—Better morale in units

E13—Improved training

E15—An Individual Ready Reserve (IRR) with benefits

These were ranked in generally the same order by personnel in Control Groups, with one principal exception. The incentive, IRR with lesser benefits, was ranked second in importance in the Control Groups, while relaxation of grooming and appearance standards ranked lower. The net gain in potential for reenlistment for a package of the most favored three of these inducements is about 0.36 for personnel in units (which is higher than for any individual economic incentive).

Satisfaction with RC Duty. Nine different aspects of RC duty were evaluated by ARNG and USAR respondents in units with respect to satisfaction derived from duty and the importance attached to that aspect of duty. In terms of satisfaction levels, only the social aspects of RC duty and the employer's attitude toward RC duty ranked above the midpoint on the satisfaction scale; the remainder were perceived as being somewhat dissatisfying. Thus the effect of RC duty on family life, commonality of skills between RC duty and civilian occupation, the effect of RC duty on free time, economic benefits enjoyed as a consequence of RC duty, acceptance of the RC member in the community, and the effect on his vacation time were all judged to be not very satisfying. When these same items were ranked in importance, it was found that economic benefits, the effect of RC duty on family life and free time, and one's personal associations in RC units were ranked as being especially more important than the remainder.

Sensitivity of Results. The findings reported are statistically reliable and consistent. There is no reason to believe they are not representative of the populations surveyed, with the possible exception of a disproportionately small number of returns from Negroes in Control Groups and the Stby.

The survey was directed to personnel in their sixth year of obligation whose age and attendant financial, family, and educational situations are relatively narrowly defined. Further, the sample of persons in RC units consists of Reserve Enlisted Program (REP) personnel whose motivations for RC service may not be the same as the broader range of potential reenlistees.

Moreover, survey questions took their final form in November 1971. The Army is in a period of change. Interests and options have changed over the past months; survey questions may not be pointed as precisely as might be desired at the alternatives now current.

Costs

The cost-free incentive package included the first five incentives listed under Noneconomic Incentives. They are repeated below:

- E1—Community domestic action programs
- E5—Freedom in personal appearance
- E3—Better utilization of skills
- E7—Assumption of family responsibilities
- E6—Improved opportunity for advancement

As also noted under Economic Incentives, the economic incentives which ranked highest among the surveyed population included:

- D7—Medical and dental benefits, full-time, for members and dependents
- D10—Federal income tax exemption of \$1250
- D8—Home loans guaranteed by FHA or VA
- D1—Pay increase of 50 percent

The most cost effective package of incentives included the cost-free incentives listed in the first paragraph under Costs plus the following economic incentives:

- D6—Improved retirement benefits
- D9—Proficiency pay
- D4—\$500 educational benefits
- D5—Low cost SGLI, full coverage

The mean probabilities for reenlistment based on the cost effective incentives are shown below:

Incentives	ARNG units	USAR units
Cost free	0.56	0.50
Economic	0.64	0.56
Both	0.70	0.64

The attractiveness of cost-free incentives in encouraging reenlistments is very evident. It should be emphasized however that enlistments are

probably more critical than reenlistments and that different incentives may be needed to secure the needed number of enlistees.

Impact on the Active Army

Our analysis shows that very few of the proposals have any potentially significant impact on the Active Army. With respect to accessions and retentions in the Active Army, the Reserve Service Obligation Clause proposal has potential impact, and it would probably be adverse. Some personnel who might be willing to enlist in the Active Army for 2, 3, or 4 years might not wish to incur the additional obligation for reserve service. However this is further complicated by legal implications such as whether the proposal implies repeal of Title 10 USC, Sec 651,² which is the law requiring 6 years of military service.

The extension of medical and dental care and of post exchange (PX) and commissary privileges have potentially significant impacts on the Active Army because of the political and physical capacity limitations as well as the fact that additional patron loads could well become an emotional irritant counteracting some of the progress made in these areas in recent months.

Legal Aspects

Medical and dental benefits ranked high as an incentive to guardsmen and reservists. A bill has been prepared for this Congress which would provide additional medical and death benefits to guardsmen and reservists and to their survivors when death is connected with training or active duty (AD).

Federal income tax exemption was popular with the surveyed group. However there is no legislation under consideration at this time. A number of states have passed legislation which provides state income tax exemption to guardsmen.

Home loans guaranteed by FHA or VA ranked high as an incentive. Draft legislation had been prepared, and later withdrawn, by the Office of the Secretary of Defense (OSD).

Retirement, survivor, and insurance benefits are included in draft legislation at this time, and these are also popular incentives.

Reenlistment/enlistment bonus draft legislation has been prepared to "provide an incentive plan for the Ready Reserve." This amends

legislative proposals (S 1470/HR 6051)^{3,4} which had been previously prepared.

Legislation that would require further study includes that having to do with a possible RC draft, and that having to do with possible extension of PX and commissary privileges to guardsmen and reservists.

Social and Political Aspects

The issue of a draft for the RC has much political significance. As recently as 15 Feb 72 the Secretary of Defense mentioned the draft possibility in his annual report to the Congress.⁵ We can anticipate that all of the arguments used to support discontinuing the draft for the active forces will be revived when or if a firm draft proposal for the RC is presented to the Congress. It would seem that a very comprehensive incentives program would have to be introduced first, prior to attempting the draft course of action.

The community domestic action program was the most popular of the cost-free incentives. The use of community domestic action programs to assist the needy and minority groups and to accomplish public service missions is a valuable social welfare instrument. As MG W. P. Wilson, then Chief of the National Guard Bureau, stated in the appropriation hearings, March 1971:⁶

...The hometown makeup of our units and the capabilities of Guardsmen foster an environment of positive response to community action projects. Guardsmen are social workers, mechanics, clerks, bankers, coaches, students, and business and professional leaders in their communities. They are vitally interested in the welfare of their communities.⁶

The issue of greater latitude in standards of personal appearance was important to the surveyed population. The vast majority are in their late twenties. All may be considered mature, 85 percent are employed, and over 80 percent are either draft motivated or are fulfilling military obligation at a time of their own choice. There is a civilian vs a military orientation to the group, and a basic difference in attitudes.

General awareness of the importance of the role of the RC is critical to the force itself. There is a need for a coordinated information plan and program addressed outward to the general public and potential

reservists as well as inward to reservists themselves. As we move forward to an all-volunteer environment the changes which are to be implemented in goals, policies, and programs for the RC must be communicated in a timely manner to all concerned. The program should be a continuing one, with attention to such variables as the target group, the timing, the method or media to be used, and the amount and type of information to be given and to be received.

TASK 2—INTERRELATIONS BETWEEN PROPOSALS

Pairwise correlations between separate incentive proposals have been calculated, using the computer, and are presented in the Phase II report as correlation coefficient matrices. A formula has been developed which permits any number of proposals to be combined into a composite proposal. This involves making a particular assumption which, if not satisfied, still permits an upper-bound estimate to be made. A particular example, illustrating use of the composite probability formula, is presented in the report; the resultant probabilities for reenlistment are shown in the tabulation in the Costs section under Task 1 above. Such calculations indicate that there is little to be gained by joining more than three separate incentives; and that a loss in composite cost effectiveness is realized when incentives are incorporated which individually have gross costs on the order of, or greater than, \$15.00 per man (as applied to the number of personnel in the total mandated force, not number of men gained). In addition, calculations indicate that the cost formulae are relatively insensitive to small changes in the reenlistment probabilities developed by the survey.

TASK 3—ADDITIONAL TESTS/PROGRAMS REQUIRED

1. Tests will be needed to measure the effectiveness of the pay raise, bonuses, and proficiency pay in attracting and retaining qualified personnel in the RC.

2. There is a need for a centralized computerized data system which allows for input and retrieval, as needed or periodically, of manpower and personnel data important to policymakers. Such data might include: quality, source, and supply of accessions; attitudes; terms of service; and reenlistment rates.

3. There is a need for a comprehensive, coordinated information plan and program addressed externally to the general public, to include selected organizations (e.g., Veterans of Foreign Wars, American Legion), employee unions, local communities, and internally to reservists themselves—guardsmen, reservists, IRR. The objective would be to enhance the image of the RC, emphasizing their role in our national defense structure; and ultimately to attract and retain qualified personnel and to assist in achieving a high state of readiness.

4. There is a need for a comparative study of the incentives, benefits, and options offered to guardsmen in the various states with a view to determining effectiveness in sustaining the force, and to extending some of these inducements to other reservists, if warranted.

5. There is a need to develop and test the effectiveness of incentives in retaining members in the IRR.

MAINTENANCE OF RESERVE COMPONENTS
IN A VOLUNTEER ENVIRONMENT
APPENDIX B: PHASE II

ABBREVIATIONS

AAFES	Army and Air Force Exchange Service
ACS	Army Community Service
AD	active duty
ADT	active duty for training
AER	Army Emergency Relief
ARNG	Army National Guard
AFQT	Armed Forces Qualification Test
ARS	Army Relief Society
ASD (M&RA)	Assistant Secretary of Defense (Manpower & Reserve Affairs)
AT	annual training
ATCG	Annual Training Control Group
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CONUS	Continental Army of the US
CORC	Chief, Office of Reserve Components
CPI	Consumer Price Index
DOD	Department of Defense
df	degrees of freedom
FHA	Federal Housing Administration
IDT	inactive duty training
IRR	Individual Ready Reserve
MOS	military occupational specialty
MUTA	multiple unit training assembly
MVA	Modern Volunteer Army
NCO	noncommissioned officer
NPS	nonprior service
OMB	Office of Management and Budget
OCS	Officer Candidate School
OSD	Office of Secretary of Defense
POM	Program Objective Memorandum
PS	prior service
PX	post exchange
RA	Regular Army of the US
RC	Reserve Components
RCG	Reinforcement Control Group
REP	Reserve Enlisted Program
ROTC	Reserve Officers' Training Corps

RSFPP Retired Servicemen's Family Protection Plan
SAG Study Advisory Group
SGLI Servicemen's Group Life Insurance
Stby Standby Reserve
TD tables of distribution
TOE tables of organization and equipment
USAFI US Armed Forces Institute
USAR US Army Reserve
USARCPAC US Army Reserve Component Personnel and Administration
Center
UTA unit training assembly
VA Veterans Administration
VRB variable reenlistment bonus
WAC Women's Army Corps

Chapter 1
EVALUATION OF RECRUITMENT AND RETENTION PROPOSALS (TASK 1)

INTRODUCTION

The proposals contributing to recruitment and retention of RC personnel in the volunteer environment were chosen as a result of examining many sources in Phase I of this study. Appendix A details the rationale for choice of these 32 proposals.

This evaluation report is divided into three sections. Section A analyzes the returns of the RAC surveys of sixth- and first-year personnel. Section B discusses each alternative proposal in depth. Section C presents the detailed cost analysis with a description of the methods and formulae used to derive net costs and cost effectiveness rankings.

The detailed discussion of each proposal includes a statement or definition, survey results, status in the Active Army, the impact of the proposal on the Active Army, the status in the RC, net cost and cost effectiveness, legislative requirements, and political and social implications of the proposal. The incentive proposals follow the order in which they were introduced in the RAC survey. Proposals not covered by survey questions are discussed last.

A. ANALYSIS OF SURVEY DATA

SURVEY OF SIXTH-YEAR RC PERSONNEL

Purpose of Survey

Phase I, Task 5, of the Work Statement,¹ requires that a survey of RC personnel be initiated by RAC to develop the data needed to determine what portion of these personnel could be induced to reenlist by different incentives, combinations of incentives, or other factors. The Task Statement directed that the survey should include personnel in the sixth year of initial enlistment in RC units and personnel in the AT obligor category of the IRR. The survey was developed by RAC with the advice and counsel of the Chief, Office of Reserve Components (CORC), and members of the Study Advisory Group (SAG). A copy of the survey is in Annex B1.

The survey instrument was pretested in November 1971 using personnel in the sixth year of their RC obligation from two USAR units: a US Army hospital unit in Rockville, Md., and a US Army Garrison unit in Baltimore, Md.

The survey that was developed has six parts:

(a) Background information concerning the military background and socioeconomic level of the respondent, as well as his geographic location.

(b) A series of items dealing with satisfactions derived from, and the importance attached to, various aspects of RC service.

(c) An expression by the respondent of the probability of his reenlistment in the RC as it is now—without any change.

(d) An expression by the respondent of the probability of his reenlistment in the RC considering, separately, the attractiveness of each of 10 economic incentives to reenlistment, and the relative attractiveness of a combination of incentives.

(e) An ordering of the relative attractiveness of a series of 15 noneconomic changes in the RC that might serve as inducements to reenlistment by making the RC affiliation more attractive, plus an ordering of the relative attractiveness of a combination of several such inducements into a package. The attractiveness of both the economic and noneconomic packages was later assessed.

(f) Questions dealing with the respondent's estimate of a fair bonus, plus questions common to the 1969 Department of Defense (DOD) survey, "Career Motivation in the Ready Reserve."⁷

Relevant Statistical Measures

Chi-square. The statistic chi-square is used frequently throughout the remainder of this section of App B. Chi-square is used to test the independence of two or more distributions expressed as classes of data [the greater the number of classes of data being tested, the greater the chance for variation among them—degrees of freedom, or df, commonly determined by the formula: $df = (\text{number of rows} - 1)(\text{number of columns} - 1)$]. As the chi-square value increases in size, the assumption of independence of the distributions becomes more doubtful, and hence the probability that the assumption is correct decreases. Or in other words, the higher the chi-square value, the greater the probability (the smaller the p value) that there is a relation among the data being tested. For example, a chi-square of 3.84 (with 1 df) has statistical significance at the 5 percent level of probability, or $p = 0.05$. This is interpreted as indicating that there is a 95 percent chance that the classes of data being examined are related, that the probability of their independence is only 5 percent. (It should be understood also that, by chance, about 5 percent of a distribution of chi-square values will be called significant erroneously.) Chi-square tests reported have been performed on frequencies, even though proportions may be shown in the tables to which chi-square tests are attached. No adjustment for small cell frequencies has been made in the instances where frequencies, and the proportions subsequently derived, are small. Rather, to compensate for any lack of rigor of the test owing to small cell frequencies, only statistical significance probability levels of 0.01 or less are reported as being statistically significant.

Determination of Sample Size. The appropriate size for a statistically reliable sample is a recurrent question in survey statistics. Three factors relate to the size sample required: the kind of data being collected, the degree of error that can be tolerated, and the probable variability among the data. When the data are enumerative or discrete—counting of respondents falling into various categories, such as married/not married, or ARNG/USAR/IRR—a larger sample is required than when the data are continuous or measurement data, such as age, income, or probability scale values.

If the variable in which one has greatest interest is a binomial proportion (discrete data), the size of sample required can be calculated by first estimating the allowable error (L) that one can tolerate in the data. For 95 percent confidence probability,

$$L = 2 \sqrt{\frac{pq}{N}},$$

where p = the proportion in one category of a binomial response, q = 1 - p, and N = the sample size required to assure that confidence limit.

If the critical variable in the survey develops measurement data, that is, data in the form of (presumed) equal-interval measures along a continuum, calculating the sample size required in order to make statements about the data with 95 percent confidence requires also an estimate of variability (σ) in the measure:

$$L = \frac{2\sigma}{\sqrt{N}}$$

For example, in the survey being described, the critical variables are the scale estimates of the probability of reenlistment with various postulated incentives in effect. It was known from the pretest of the survey instrument that the standard deviation among responses on the probability scales fell between .25 and .35. Assuming the upper limit of variability, and requiring that L be no greater than .05,

$$.05 = \frac{2 (.35)}{\sqrt{N}}; \quad \sqrt{N} = \frac{2 (.35)}{.05}; \quad N = \left[\frac{2 (.35)}{.05} \right]^2$$

$$N = 196$$

In the principal survey, the Ns in the RC categories ranged from 261 to 453, all of which exceed the calculated sample estimate of 196. Assuming appropriate sampling of the RC category populations, it would appear the sample drawn adequately represent the populations.*

Population Sample

As noted in the Task Statement, the sample was to be confined to personnel who were in the sixth year of their obligation, i.e., those who had entered military service generally in 1966. In addition to those personnel in ARNG and USAR units and in the ATCG, the sample was expanded to include sixth-year personnel in the RCG and the Stby. A random sample (systematic selection after random start) was developed by the US Army Reserve Components Personnel and Administration Center (USARCPAC) in St. Louis, Mo., from the five tape files that are maintained for these five groups. The five files and the number of persons drawn from them are as follows:

Category	Population of sixth-year personnel	Sample	Proportion, %
ARNG units	45,000	998	2.2
USAR units	39,000	975	2.5
ATCG	14,000	999	7.1
RCG	41,000	996	2.4
Stby	385,000	963	0.3

The total sample of 4931 is roughly 1 percent of the total population of sixth-year personnel. Note, however, that the sampling of the files was done in different proportions to draw a sample of about 1000 from each of the five categories.

The sample was provided by USARCPAC in the form of a computer print-out of names and two sets of mailing labels. The surveys were mailed to

* Adapted from George W. Snedecor, Statistical Methods, The Iowa State University Press, Ames, Iowa, 1956, with special reference to William G. Cochran, "Design and Analysis of Sampling," Chap. 17.

respondents about 7 Dec 71. Reminder letters were mailed on 15 Dec 71 to those who had not yet returned the survey.

In Table 1-1, the distribution of surveys sent out within each of the RC categories in the 50 States and the Territories has been compressed into the nine regions of the US, plus a tenth category for individuals in the Territories.

Table 1-2 presents a summary of the sample and returns. About 3.6 percent of the surveys sent out were not deliverable because of incorrect addresses. About the same proportion that were returned were not usable because they had been filled out incorrectly or the respondent had declined to complete the form. The rate of response was 43 percent overall, with the highest rates being among the ARNG and USAR unit personnel. A total of 1785 returns was used in the analysis.

The distribution of the original sample, by region of the US, is shown in Table 1-1. In the ARNG units, the East North Central with 15 percent, West North Central with 16 percent, and the South Atlantic regions with 15 percent provide nearly half of the sample. The Middle Atlantic region with 20 percent provides the largest proportion for the USAR units, followed by the East North Central with 18 percent and the South Atlantic with 17 percent. The East North Central region provides the highest proportions for those in the Control Groups and Stby. The differences in the distributions shown presumably reflect the distribution of the various categories of RC personnel in the US.

The way in which returns were distributed is described in Table 1-3. The highest rate of usable returns was 50 percent from USAR unit personnel with 44 percent from ARNG unit personnel; the lowest rate was from the ATCG with 27 percent, with 28 percent from Stby. The differences in return rate by RC categories were statistically significant. There was no significant variation in rate of return from regions of the US. The highest rate was from the South Atlantic region with 42 percent, and the lowest rate from the Middle Atlantic and Pacific regions with 34 percent. Thus the returns appear to be representative (within a RC category) of the original sample. Additional discussion of the representativeness of the returns will be found in the last portion of this chapter where sensitivity of results is examined.

Table 1-1

DISTRIBUTION OF ORIGINAL SAMPLE, BY REGION OF THE US
(Survey of Sixth-Year Personnel)

(Percent)

Region of US ^a	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
New England	7	8	4	4	4
Middle Atlantic	10	20	16	15	17
East North Central	15	18	23	24	23
West North Central	16	10	11	8	8
South Atlantic	15	17	14	17	15
East South Central	11	8	6	6	5
West South Central	9	8	10	10	9
Mountain	7	4	5	5	4
Pacific	9	7	11	12	14
Other	1	1	1	1	1
Total US	100	100	100	100	100

^aNew England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
 Middle Atlantic: New Jersey, New York, Pennsylvania
 East North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin
 West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
 South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
 East South Central: Alabama, Kentucky, Mississippi, Tennessee
 West South Central: Arkansas, Louisiana, Oklahoma, Texas
 Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
 Pacific: Alaska, California, Hawaii, Oregon, Washington
 Other: Guam, Puerto Rico, Virgin Islands, other

Note: Percents may not total 100 because of rounding.

Table 1-2

SAMPLE
(Survey of Sixth-Year Personnel)

	Reserve Component category					Totals
	ARNG	USAR	ATCG	RCG	Stby	
Original sample	998	975	999	996	963	4931
Nondeliverable	28	63	28	23	37	179
Net sample	970	912	971	973	926	4752
Total returns	482	469	315	455	307	2028
(Percent return)	(50)	(51)	(32)	(47)	(33)	(43)
Federal technicians ^a	16	7	-	1	1	25
Not usable	45	10	59	70	46	230
Usable returns	420	453	266	385	261	1785

^aFederal technicians excluded from sample for ARNG and USAR units.

Table 1-3

DISTRIBUTION OF NET USABLE SAMPLE^a
(Survey of Sixth-Year Personnel)

Region	Reserve Component category												Percent return
	ARNG		USAR		ATCG		RCG		Stby		Totals		
	S ^a	R ^a	S	R	S	R	S	R	S	R	S	R	
New England	69	27	75	32	39	10	39	15	39	11	261	95	36
Middle Atlantic	95	39	187	89	149	27	144	55	155	38	730	248	34
East North Central	149	70	154	87	225	66	232	78	222	59	982	360	37
West North Central	152	73	88	37	105	32	81	33	79	25	505	200	40
South Atlantic	142	66	147	86	140	34	164	73	137	49	730	308	42
East South Central	104	46	79	43	57	18	57	25	50	7	347	139	40
West South Central	89	42	77	32	95	28	93	38	80	20	434	160	37
Mountain	64	26	34	16	45	13	45	20	32	10	220	85	39
Pacific	79	27	59	28	111	32	116	44	128	37	493	168	34
Other	11	2	5	1	5	2	2	1	4	2	27	8	30
No Region response													
Totals	954	420	905	453	971	266	973	385	926	261	4729	1785	
Percent return	44		50		27		40		28				38

Chi-square of marginal totals:

Across RC categories, $\chi^2 = 97.23$, $df = 4$, $p = < 0.01$

Across Regions of US, $\chi^2 = 10.42$, $df = 9$, not significant

^a 179 nondeliverable surveys and 23 returns from Federal technicians in ARNG and USAR units not included in S (sent) or R (returned) columns, 173 nonusable returns not included in R columns.

Results

A summary of the results from Part A, Background Information, is contained in Table 1-4. Chi-square tests are given for most distributions. When the distributions are obviously different, chi-square tests are not reported.

A1—Grade. Respondents ranged in grades from E1 to E9. There is some question, however, as to whether the E8 or E9 responses might not be erroneous, because it would be difficult for one to attain the grade of E8 or E9 in 5 years of RC service. It is seen that there are differences in the grade structure of those in units as contrasted with those in the Control Groups. Those in units have had greater chance to advance in grades, and one sees more E6's in the ARNG and USAR units. The bulk of those surveyed among all categories were E4's and E5's. The chi-square value of 152.86, with 32 degrees of freedom, indicates that the disproportionate rank distributions are significantly different as demonstrated by the probability value of less than 0.01.

A2—Time in Active Army. As might be expected, about 90 percent of personnel in units had less than 6 months in the Army, and about 10 percent had from 6 to 12 months. The ATCG consists largely of persons drafted into the Army, and these respondents had generally 2 years of military service. The RCG and Stby are generally divided between 2 and 3 years of service.

A3—Months in Military Schools. It appears that the respondents in the USAR units had slightly more military schooling than those in the ARNG units, but the distributions in the table as a whole are not significantly different.

A4—Military Occupational Specialty (MOS) in Which Trained. Respondents have been analyzed only in terms of occupational area (first digit of the MOS number). Since the ARNG has a high proportion of combat units, it is not surprising that 42 percent of the respondents indicated that they were trained in MOSs in the tactical operations occupational area. Neither is it surprising to find the high percentage in clerical and general technical areas for USAR respondents as contrasted with the smaller proportions for the ARNG. Almost 40 percent of the ATCG had combat arms MOSs which, perhaps, reflects somewhat the lack of choice that the draftee has with respect to MOS.

Table 1-4

PERCENTAGE DISTRIBUTION OF RESPONSES TO PART A, BACKGROUND INFORMATION
(Survey of Sixth-Year Personnel)

Item	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
Number of Responses	420	453	266	385	261
<u>A1 - Grade</u>					
E1 to E3	4	6	6	5	3
E4	42	34	55	45	42
E5	42	44	38	48	53
E6	11	16	<1	1	2
E7 to E9	1	1	<1	1	-
Chi-square = 152.86, df = 32; p = <0.01					
<u>A2 - Time in Active Army</u>					
Less than 6 months	89	89	2	1	1
6-12 months	8	10	2	1	1
About 2 years	2	2	89	56	57
About 3 years	2	-	5	38	36
About 4 years	<1	<1	2	4	6
Chi-square = 162.73, df = 16; p = <0.01					
<u>A3 - Months in Military Schools</u>					
0	49	33	37	37	34
1-9	31	43	36	35	38
10-19	19	18	24	22	22
20-29	1	3	2	4	3
30 or more	<1	2	<1	3	3
Chi-square = 25.16, df = 16; NS					
<u>A4 - MOS in Which Trained</u>					
0 - Special assignment	4	3	5	2	2
1 - Tactical operations	42	15	39	21	20
2 - Missile & Fire Control electric maintenance	1	1	1	3	3
3 - General elec. maintenance	8	7	4	9	7
4 - Precision maintenance	2	1	3	2	4
5 - Auxiliary services	3	8	2	5	3
6 - Motors	14	16	14	26	17
7 - Clerical	16	30	16	20	24
8 - Graphics	1	1	1	1	2
9 - General technical	10	18	16	11	18
Chi-square = 189.20, df = 36; p = <0.01					
<u>A7 - Age (years)</u>					
20-21	-	-	<1	-	<1
22-23	9	5	6	11	4
24-25	48	37	56	61	56
26-27	22	25	17	15	22
28-29	16	25	17	9	14
30 and older	4	8	4	3	4
Mean	25.2	25.8	25.2	24.6	25.2
Chi-square = 110.48, df = 20; p = <0.01					

Table 1-4 (continued)

Item	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
<u>A8 - Civilian Education</u>					
Grade school	<1	<1	1	2	2
Some high school	2	1	13	13	8
High school graduate	35	28	37	52	40
Some college	37	34	35	26	37
College graduate	20	23	8	7	10
Postgraduate study	6	13	6	1	3
Chi-square = 247.43, df = 20; p = <0.01					
<u>A9(1) - Training Assemblies for Pay Past Year</u>					
1-30	6	5	83	-	-
31-40	3	5	8	-	-
41-50	75	84	8	-	-
51-60	12	4	-	-	-
More than 60	3	2	-	-	-
<u>A10 - Days of Active Duty Training Past 3 Years</u>					
None or NR	17	11	79	84	81
1-10	1	<1	-	1	2
11-20	1	2	16	5	8
21-30	3	4	1	1	2
31-40	2	4	-	-	<1
41-50	65	68	-	-	-
More than 50	11	15	4	9	7
<u>A11 - Marital Status</u>					
Single	15	14	21	27	27
Married	84	84	73	70	69
Separated/divorced	2	2	6	3	5
Widowed	-	-	-	-	-
Chi-square = 51.11, df = 8; p = <0.01					
<u>A12 - Number of Children</u>					
None	44	40	49	46	49
1	36	35	33	36	33
2	18	23	13	16	14
3	2	2	4	1	3
Chi-square = 23.70, df = 12; NS					
<u>A13 - Civilian Occupation</u>					
Professional or managerial	12	25	10	3	12
White collar	29	28	21	24	24
Blue collar	57	45	60	66	53
Student or unemployed	2	2	10	8	11
Chi-square = 146.18, df = 12; p = <0.01					
<u>A14 - Present Employment</u>					
Self-employed	14	11	8	5	6
Employed by government	10	13	7	10	11
Employed by private firm	72	73	70	74	68
Student	2	2	10	8	10
Part-time student/part-time empl.	<1	1	1	1	2
Unemployed	1	-	4	3	4
Chi-square = 89.90, df = 20; p = <0.01					

Table 1-4 (continued)

Item	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
<u>A16 - Present Income Excluding Military Pay</u>					
Less than \$4,000	3	4	12	17	15
4,000 - 6,000	13	6	16	22	12
6,000 - 8,000	22	18	31	28	23
8,000 - 10,000	24	21	19	21	30
10,000 - 12,000	20	23	11	8	14
14,000 - 16,000	2	6	2	1	2
16,000 - 18,000	2	4	1	<1	<1
18,000 - 20,000	1	3	<1	<1	-
20,000 - 22,000	<1	1	<1	-	<1
22,000 - 24,000	1	1	<1	-	-
More than 24,000	1	2	<1	-	-
Means	\$8,200	\$9,600	\$6,800	\$5,800	\$6,800
Chi-square = 289.49, df = 44; p = <0.01					
<u>A17 - Estimate of Value of Annual RC Pay and Benefits</u>					
None	-	-	33	45	40
Less than \$500	9	10	61	51	58
500 - 699	36	42	2	1	<1
700 - 899	37	34	2	<1	-
900 - 1,099	14	9	1	1	<1
1,100 - 1,299	2	4	<1	1	-
1,300 or more	1	2	1	2	2
Approximate mean	\$719	\$696			
(A18 - Present Family Income Means)	\$10,400	\$11,800	\$8,800	\$7,200	\$8,600
Chi-square = 267.28, df = 44; p = <0.01					
<u>A19 - Religious Preference</u>					
Jewish	2	2	1	-	3
Protestant	65	60	63	61	65
Roman Catholic	24	28	22	25	20
None	4	4	8	8	6
Other	7	5	6	6	6
Chi-square = 53.62, df = 16; p = <0.01					
<u>A20 - Race</u>					
American Indian	<1	<1	<1	1	<1
Caucasian	98	98	90	85	90
Negroid	<1	1	6	10	5
Oriental	<1	<1	-	1	2
Other	<1	1	3	2	3
Chi-square = 96.89, df = 16; p = <0.01					
<u>A21 - Type of Community in Which Reared</u>					
Farm	26	16	21	20	19
Small town	40	30	35	40	34
Suburb	13	23	20	17	23
City	22	31	24	23	24
Chi-square = 42.44, df = 12; p = <0.01					
<u>A22 - Region of US in Which Reared</u>					
New England	6	8	3	4	4
Middle Atlantic	10	19	11	15	15
East North Central	16	21	25	20	23
West North Central	17	10	14	10	9
South Atlantic	16	19	12	19	17
East South Central	8	8	9	7	7
West South Central	10	7	10	10	8
Mountain	6	3	6	4	2
Pacific	7	4	10	10	13
Other	<1	<1	1	1	3

Table 1-4 (continued)

Item	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
<u>A23 - Type of Community in Which Now Living</u>					
Farm	14	9	12	10	9
Small town	36	25	29	37	31
Suburb	22	31	25	19	25
City	28	36	35	34	36
Chi-square = 37.60, df = 12; p = <0.01					
<u>A24 - Region of US in Which Now Living</u>					
New England	6	7	4	4	4
Middle Atlantic	9	20	10	14	15
East North Central	17	19	25	20	23
West North Central	17	8	12	9	10
South Atlantic	16	19	13	19	19
East South Central	11	7	7	7	3
West South Central	10	7	11	10	8
Mountain	6	4	5	5	4
Pacific	6	6	12	12	14
Other	<1	<1	1	<1	<1

Note: Percentages may not total to 100 owing to rounding.

Chi-squares calculated on frequencies, and not adjusted for small frequencies in a cell; only probabilities of .01 or greater reported as significant.

Chi-square values not reported in instances where differences are obvious

A5—MOS in Which Now Working. The distribution of MOSs reported in response to this question is generally the same as for item A4 and is, therefore, not reported herein.

A7—Age. There are significant differences in the distribution of ages among the five RC categories. The respondents in USAR units tend to be slightly older than those in ARNG units; those in the RCG (42 percent having had 3 or more years of active service and presumably having enlisted) tend to be younger.

A8—Civilian Education. Educational levels for the various RC categories are significantly different, with the higher proportion of college graduates among the ARNG and USAR units. The educational level is higher in the USAR units than it is in all other categories, with 36 percent being college graduates. The RCG has the lowest educational level, with some 67 percent being high school graduates or less and only 8 percent being college graduates.

A9(1)—Training Assemblies for Pay during the Past Year. About 90 percent of the members of ARNG and USAR units have attended 41 or more paid training assemblies during the past year. In response to item A9(2), the number of training assemblies not for pay, over 10 percent indicated that they had attended between one and 10 meetings not for pay. From write-in responses in the surveys and from interviews during the pre-test, it appears that unit members sometimes attend an assembly but do not get paid for it because they might have been late or might, for some other reason, have been docked and not paid for the meeting. This accounts for the fact that, while only five absences are allowed during the year, it appears that 10 or more percent of those persons in units did not get paid for 43 assemblies during the year.

A10—Days of Active Duty Training during the Past Three Years. No attempt has been made to determine the significance of these differences because of so many incomplete cells and because of the obvious differences between persons in units and those in Control Groups. It appears that the ARNG and USAR unit members do not differ in the amount of AT experienced.

A11—Marital Status. A higher proportion of those in units is married. There also seems to be a higher proportion separated or divorced

in the Control Groups. The differences among the RC categories are statistically significant.

A12—Number of Children. Nearly 50 percent have no children, and no one claimed more than three. The differences among RC categories are not significant.

A13—Civilian Occupation. The survey called for a write-in of occupation. The responses were coded into four categories as shown in Table 1-4. It is very evident that a higher proportion in the USAR units has higher level occupations, especially in the professional or managerial occupations. Those in the RCG have the lowest occupational level, two-thirds being employed in blue-collar jobs. Roughly 10 percent of those not in pay units are either students or unemployed. The differences in distributions are statistically highly significant.

A14—Present Employment. The high proportions unemployed in the Control Groups are somewhat confirmed in this item. It is evident also that there are higher proportions of individuals in ARNG and USAR units who are self-employed, a point that will be noted later in considering the characteristics of self-employment and the effect that it has upon satisfying one's RC obligation.

It was noted earlier that Federal civilian employees assigned as technicians to ARNG or USAR units (as determined in question A15) have not been included in the survey responses analyzed. There were 23 such respondents in units (plus two in the Control Groups or Stby whose returns were analyzed).

A16—Present Annual Income Excluding Military Pay. The results from this question point up additional distinctions in the socioeconomic character of RC categories. The mean income of those in the USAR units is \$9600, \$1400 more than that of those in ARNG units, and those persons in the Control Groups and Stby are some \$1400 to \$2400 below the ARNG units in mean annual income.

When the responses to item A18 on present family income are examined, it is seen that other income within the family increases the family annual income approximately \$2000 more, but a good portion of this, for members of pay units, comes from pay for participation in the RC.

A17—Estimate of Value of Annual RC Pay and Benefits. The majority of the respondents who were in units indicated that the value of their RC pay and benefits generally was between \$500 and \$900. This represents roughly a 7 to 9 percent increase to total individual income.

A19—Religious Preference. There appear to be no real differences as to religious preferences. It is seen that 60 to 65 percent are Protestant and 20 to 28 percent are Roman Catholic. These proportions are not consistent with the distribution of population by denominational membership nationally. The survey percentages are approximately equivalent for Roman Catholic, but Protestant percentages reported here are much higher than national figures, which suggests that respondents, not members of a denomination, indicated preferences (as the question asked), and that there is much less nominal-only affiliation among the Roman Catholics.

A20—Race. The significant distinction shown in the survey is that members of ARNG and USAR units are white (98 percent). Among the Control Groups members range from 85 to 90 percent white and from 5 to 10 percent Negro. One may speculate that there were disproportionately few returns from Negro respondents (as well as from respondents of other races in the lower socioeconomic levels), especially in the ATCG and Stby.

A21—Type of Community in Which Reared. It is seen that there are basic differences between the ARNG and USAR units with respect to where the respondents were reared. Over half of the USAR unit personnel were reared in suburbs and cities, as contrasted with 35 percent of those in ARNG units. These differences are probably a function of where ARNG and USAR units are located. The ARNG units tend to be situated in more rural areas.

A22—Region of US in Which Reared. This item is closely related to item A24 and will be discussed there.

A23—Type of Community in Which Now Living. The distinction, noted before, concerning more USAR unit members in suburbs and cities and more ARNG unit members in farms and small towns, is again evident in more striking fashion. The contrast between items A21 and A23 gives some indication both of the urbanization of US society and the mobility of this population.

A24—Region of US in Which Now Living. The distribution characteristic of each RC category shown here and in question A22 is a function of the sample for the survey. The responses to items A22 and A24 are strikingly similar to the distribution of the original sample described in Table 1-1. The fact that the returns are representative of the total mailed out is confirmed by the nonsignificant chi-square reported in Table 1-3.

Summary of Background Information. The more striking differences among respondents in the different RC categories can be summarized as follows:

(a) The ARNG unit personnel have a greater proportion of personnel trained in tactical operations MOSs, while USAR unit personnel are more often trained in clerical and general technical fields.

(b) The ARNG and USAR unit personnel are of a higher educational level than those in the IRR and Stby.

(c) The USAR unit personnel occupy higher occupational levels. Respondents in the RCG are markedly low in occupational level.

(d) A higher proportion of ARNG and USAR unit respondents is either self-employed or employed in government.

(e) Mean annual income levels are higher for USAR unit respondents than from ARNG unit respondents, whose income levels, in turn, are notably higher than for those not in units.

(f) The proportion of Negro respondents in ARNG and USAR units is 1 percent or less.

(g) The ARNG unit respondents tend to come from, and be located in, more rural areas.

Satisfaction and Importance of Aspects of RC Service

Part B of the survey listed nine different aspects of RC service. It was the intent of this portion of the survey to learn how satisfying each of these nine elements was, and to learn further the importance that the respondent attached to each aspect associated with RC service. The respondent indicated on a 7-point scale the degree of his satisfaction with that element of service, one being least satisfying, and seven most satisfying. After he had judged the satisfaction associated with each item, he was asked to indicate the relative importance of each item

by ranking them in importance from one to nine, one being most important and nine being least important.

The mean satisfaction and importance scores and rankings are shown in Table 1-5 for the respondents in the ARNG and USAR units. (Responses to Part B of the survey by respondents in Control Groups and Stby were not complete enough to be analyzed.) Satisfaction scores are ranked from most satisfying to least satisfying. It is seen that item B2, personal associations and friendships, was found to be most satisfying. Item B8, the employer's attitude toward the member's RC duty, also was found to be somewhat satisfying, just slightly above the midpoint of the satisfaction scale. It is of concern that all the remaining items are rated below the midpoint of the scale; that is, they are found not to be especially satisfying. At the bottom in terms of satisfaction are items B3, economic benefits associated with RC service, B6, effect of RC service on free time, B9, transfer of skills (relation of skills) between RC service and civilian life, and B5, effect of RC duty on family. It will be noted also that there is a significant difference between the ARNG and USAR unit personnel with respect to items B1, assigned duties, and B4, acceptance in community; that is, those respondents in USAR units express significantly less satisfaction with these two items than do ARNG unit respondents.

The importance rank accorded the nine items indicates that items B3, economic benefits, B5, the effect of RC duty on family life, B6, the effect of RC duty on free time, and B2, personal associations in RC units, are ranked above the median rank; that is, they are considered more important than the remaining elements. Acceptance in the community and transfer of skills are considered relatively unimportant. Note that item B6, effect on free time, is considered significantly more important by respondents in USAR units than those in ARNG units.

The relation between the satisfaction scores and the importance rankings for the nine elements is a matter of concern to commanders and policymakers. Ideally it would seem important to attend to those things that are considered important by the respondent and, especially, those things in which satisfaction levels are low. The relation between satisfaction scores and importance rankings is shown in Fig. 1-1. Those things

Table 1-5
 MEAN SATISFACTION AND IMPORTANCE VALUES FOR RC SERVICE
 (Part B — Survey of Sixth-Year Personnel)

Item	ARNG		USAR	
	M ^a	SD ^a	M ^a	SD ^a
Satisfaction Scores				
B2 - Personal associations	5.2	1.46	5.1	1.46
B8 - Employer's attitude	4.3	2.10	4.5	2.19
B1 - Assigned duties	3.9	1.71	3.6 ^b	1.79
B7 - Effect on vacation	3.4	2.28	3.6	2.30
B4 - Acceptance by community	3.2	1.55	2.9 ^b	1.48
B3 - Economic benefits	3.0	1.57	2.9	1.58
B6 - Effect on free time	2.9	1.64	2.8	1.65
B9 - Transfer of skills	2.8	1.79	2.6	1.79
B5 - Effect on family life	2.7	1.48	2.6	1.53
Importance Ranking				
B3 - Economic benefits	3.6	2.40	3.9	2.51
B5 - Effect on family life	3.7	2.39	3.6	2.25
B6 - Effect on free time	4.2	2.36	3.8 ^c	2.20
B2 - Personal associations	4.4	2.24	4.4	2.37
B7 - Effect on vacation	5.0	2.50	4.8	2.42
B1 - Assigned duties	5.1	2.32	5.1	2.40
B8 - Employer's attitude	5.8	2.43	5.8	2.43
B9 - Transfer of skills	6.2	2.51	6.0	2.53
B4 - Acceptance by community	6.2	2.26	6.5	2.16

^aM=mean value, SD=standard deviation.

^bSignificantly less satisfying for USAR unit respondents.

^cSignificantly more important for USAR unit respondents.

Note: Differences in means of the following amounts are required for statistical significance at the 5 percent level of confidence: for satisfaction, 0.3, for importance, 0.4.

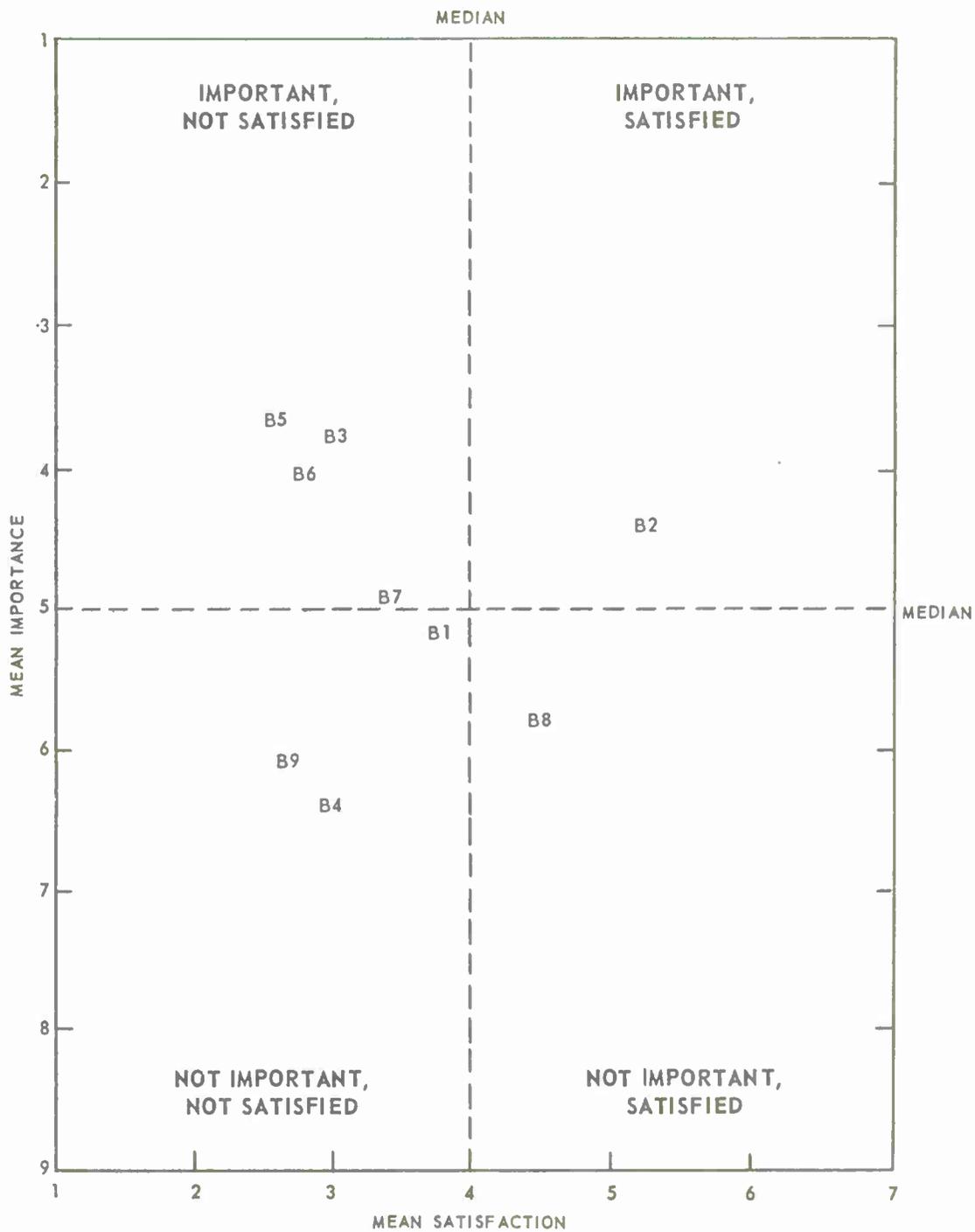


Fig. 1-1—Relation of Mean Satisfaction and Importance Values for Various Aspects of RC Service (ARNG and USAR Units Combined)

B1, assigned duties; B2, personal associations; B3, economic benefits; B4, acceptance by comm.; B5, effect on family life; B6, effect on free time; B7, effect on vacation; B8, employer's attitude; B9, transfer of skills.

that are not satisfying and are considered more important than average, then, should appear in the upper left quadrant. It is seen that three items are grouped in that quadrant—B3, economic benefits, B5, the effect on family life, and B6, effect on free time, and perhaps B7, effect on vacation. Somewhat less attention might need to be given those elements that are relatively less important and are not satisfying—B4, acceptance by community, B9, transfer of skills, and perhaps, B1, assigned duties. Item B8, employer's attitude, in the lower right quadrant, seems relatively unimportant and reasonably satisfied. Item B2, personal associations, which is both important and satisfied, should be reinforced to make sure that sufficient emphasis is placed upon it to keep it there.

It may be argued that, since the importance ranking procedure is a forced-choice mechanism and half the items must always be relatively important—a criticism which is true—we have no way of knowing the absolute importance attached. From the standpoint of satisfaction, however, the scale is so arranged that ideally one would hope all items are perceived to be toward the right side of the scale; that is, in the direction of being better than average satisfied. Thus the ideal result, with respect to Fig. 1-1, would be one which saw all points in the upper and lower right quadrants.

Potential for Reenlistment without Additional Incentives

Part C of the survey determined the respondent's potential for reenlistment on a 100-point scale. No incentives or inducements were promised. The distribution of responses for five RC categories is shown in Table 1-6, along with the mean of the probabilities for each RC category. It is seen that there is generally progressively less inclination to enlist in the RC, the further the respondent is from active participation in the RC. Reenlistment probability is highest for the ARNG units, next for the USAR units, and lowest for those in the Stby. (It should be remembered that those in the Stby have completed all RC obligations, and it should not be expected that the reenlistment potential would be very high.)

It is of special interest to note the distribution of responses. For the ARNG units, 53 percent indicated the probability of reenlistment as being zero, where only 3 percent indicated that it would be certain (100 percent). Similarly for those in USAR units, 62 percent and 3 percent were the indicated probabilities.

Table 1-6

PERCENTAGE DISTRIBUTION OF RESPONSES FOR PROBABILITY
OF REENLISTING WITHOUT ADDITIONAL INCENTIVES

(Item C1 - Survey of Sixth-Year Personnel)

Probability of reenlisting	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
0	53	62	74	72	82
10	13	11	6	8	7
20	7	4	4	2	2
30	4	4	2	3	2
40	4	2	2	4	2
50	6	4	8	4	3
60	1	3	1	2	-
70	2	1	1	1	<1
80	3	2	2	1	1
90	2	2	<1	<1	-
100	3	3	2	3	<1
Mean	.19	.15	.11	.11	.06
SD	.28	.27	.23	.24	.15

SD=standard deviation

Note: Percentages may not total to 100 because of rounding.

Information of this sort often is acquired by a five-point, assumed equal-interval scale, in which likelihood is described in words rather than in numbers. It will be useful to know the relation between the two forms of response for the same individual. When one says "definitely will reenlist," what probability of reenlistment does this mean, and how are the other four points positioned on a probability scale?

In order to relate the probability scale responses to verbal descriptions, the reenlistment question was asked in a similar form as F8, the last question of the survey. In this question, however, the response was on a five-alternative scale, the five alternatives being: definitely will not reenlist, probably will not reenlist, not sure, probably will reenlist, and definitely will reenlist. The distribution of responses on this question, then, should correspond closely with the probability scale responses. The distribution of responses on question F8 is shown in Table 1-7.

Attention is invited to the ARNG and USAR unit personnel responses combined. From Table 1-7, it is seen that 4 percent answered "definitely will" reenlist; to reach 4 percent in Table 1-6, one must use the 100 percent probability interval* plus half the 90 percent probability interval answers. The space represented by the 4 percent so answering is shown by the vertical bar on Fig. 1-2 running from 90 to 100 percent probability of reenlisting; the midpoint in the bar is shown by x.

For the next alternative "probably will" in Table 1-7, there is an average of 8 percent of the ARNG and USAR responses; one must collect proportions of frequencies on Table 1-6 up into the 50 percent interval before reaching the equivalent 8 percent. The vertical bar for "probably will" reenlist (Fig. 1-2) thus covers the interval from 90 percent to slightly less than 55 percent. The other intervals are plotted on Fig. 1-2 in the same manner.

About 15 percent indicated "not sure" which corresponds to the probability interval of 20 to 55. Between 22 and 23 percent indicated "probably will not" reenlist, which corresponds roughly to the interval

* It is assumed that probability scale values represent the midpoint of an interval: 100 represents 95.00 to 104.99, 90 represents 85 to 94.99, 80 represents 75.00 to 84.99, and so on.

Table 1-7
 PERCENTAGE DISTRIBUTION OF RESPONSES FOR
 INTENTION TO REENLIST IN RC
 (Item F8 — Survey of Sixth-Year Personnel)

Reenlistment intention	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
1. Definitely will not	46	55	58	60	67
2. Probably will not	23	22	20	18	18
3. Not sure	17	14	18	15	13
4. Probably will	10	6	3	6	2
5. Definitely will	4	4	1	2	< 1
Means	2.0	1.8	1.7	1.7	1.5
Chi-square = 54.42, df = 16; p = < 0.01					

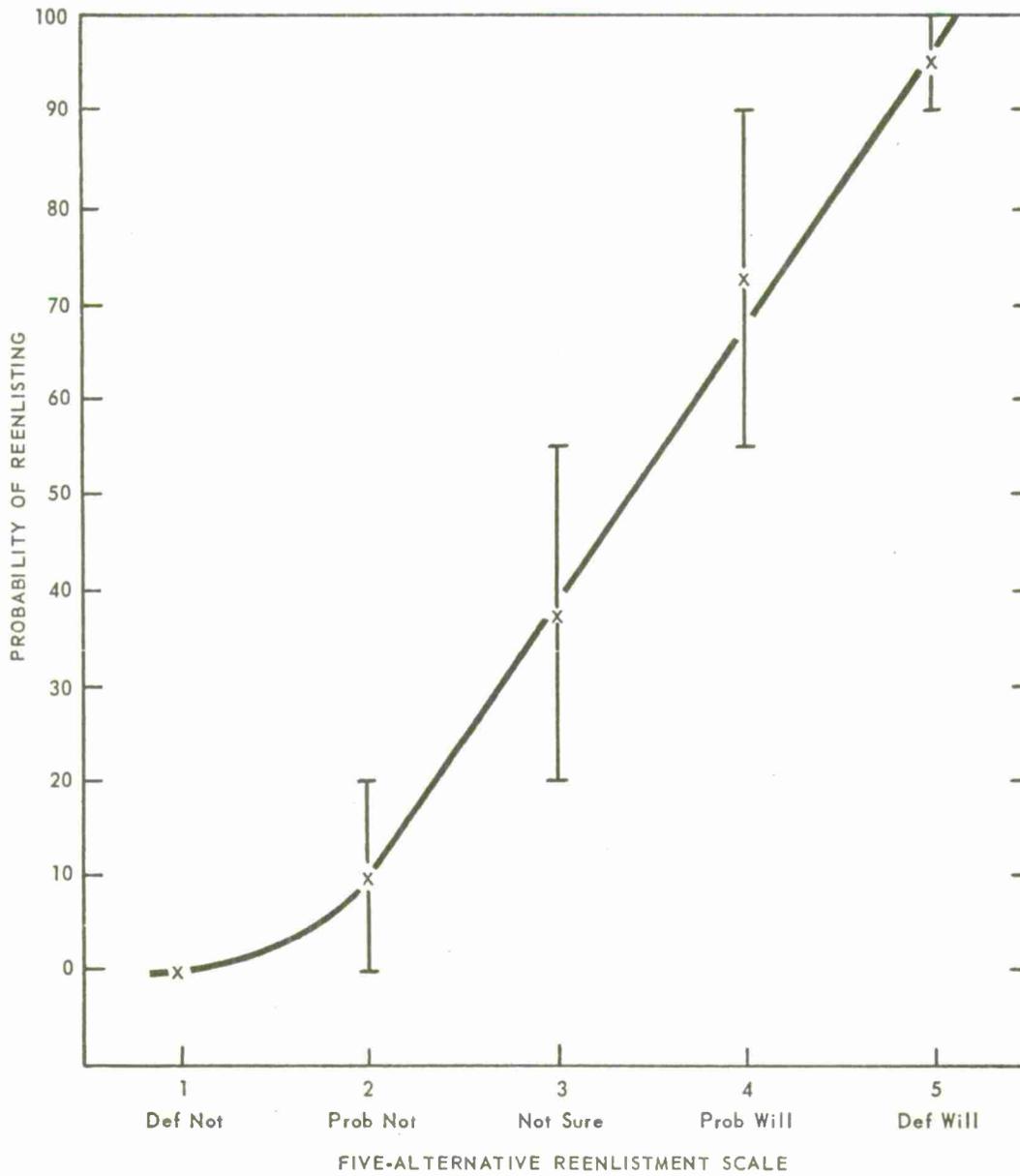


Fig. 1-2—Relation between Probability Scale and Five-Alternative Scale in Assessing Reenlistment Probability

0 to 20; and about 50 percent said "definitely will not," corresponding to zero probability of reenlisting.

In Fig. 1-2, a line has been drawn by inspection through the midpoint of each probability range to demonstrate the relation between the two types of scale. No claim is made that one scale is more correct than another, but for this kind of RC reenlistment, with this kind of RC personnel, the relation is as shown.

The skew distribution of probability values for reenlistment was noted in Table 1-6. This kind of skewness will be apparent when mean probability values are very low, or very high. In such a case, rather than using the mean probability values, it might be better to use the median probability values, or to speak in terms of the percentage of respondents falling in the tail of the distribution that one is interested in describing. (Further discussion of the possibility of a constant error in mean probability values will be found in the last section of this chapter.) In the analysis conducted in this study, however, this problem was overcome in another way, described in the next section.

Economic Incentives

Part D of the survey determined the probability of reenlistment in consideration of each of 10 different economic alternatives. The mean and median probability of reenlistment values for each alternative are shown in Table 1-8 for each of the five RC categories. Also shown are the mean probability values for an economic incentive package, item B12, which the respondent composed, using two or three of his most favored economic incentives. Thus it is seen that the economic package always has a higher reenlistment probability value than does any individual economic incentive.

Also shown in Table 1-8 is a noneconomic package which the individual had composed and which will be discussed later. The combination of the two is shown as the last row in the table.

It is seen that the mean probability of enlistment values are highest for item D7, medical and dental benefits, followed generally for respondents in ARNG and USAR units by item D10, the income tax exemption, then by D8, home loan guarantee and so on, with bonus, no economic loss during AT, and SGLI being the lowest ranking.

Table 1-8

MEAN PROBABILITY OF REENLISTMENT FOR VARIOUS INCENTIVES
(Parts C, D and E - Survey of Sixth-Year Personnel)

Item	Reserve Component category					
	ARNG	USAR	ATCG	RCG	Stby	
C1 - No change in RC	0.19 (0.05) ^a	0.15 (0.04) ^a	0.11 (0.03) ^a	0.11 (0.03) ^a	0.06 (0.02) ^a	
D1 - Increased pay	0.43 (0.45)	0.35 (0.30)	0.23 (0.05)	0.22 (0.04)	0.18 (0.04)	
D2 - Bonus	0.32 (0.28)	0.25 (0.14)	0.24 (0.05)	0.21 (0.04)	0.17 (0.04)	
D3 - No loss during AT	0.32 (0.24)	0.23 (0.05)	0.27 (0.06)	0.26 (0.05)	0.19 (0.04)	
D4 - Educational benefits	0.32 (0.25)	0.28 (0.16)	0.26 (0.05)	0.26 (0.05)	0.22 (0.05)	
D5 - SGLI	0.27 (0.15)	0.23 (0.10)	0.25 (0.05)	0.26 (0.05)	0.18 (0.04)	
D6 - Improved retirement	0.41 (0.36)	0.33 (0.26)	0.32 (0.24)	0.31 (0.15)	0.26 (0.14)	
D7 - Medical and dental benefits	0.50 (0.50)	0.42 (0.40)	0.36 (0.30)	0.34 (0.20)	0.30 (0.17)	
D8 - Home loan guarantee	0.45 (0.45)	0.40 (0.36)	0.28 (0.15)	0.30 (0.10)	0.22 (0.05)	
D9 - Proficiency pay	0.34 (0.26)	0.30 (0.25)	0.27 (0.06)	0.27 (0.05)	0.21 (0.04)	
D10 - Income tax exemption	0.48 (0.50)	0.42 (0.45)	0.33 (0.25)	0.34 (0.24)	0.27 (0.14)	
D12 - Economic package	0.64 (0.74)	0.56 (0.58)	0.36 (0.33)	0.38 (0.35)	0.37 (0.36)	
E17 - Noneconomic package	0.56 (0.58)	0.50 (0.51)	0.37 (0.34)	0.37 (0.37)	0.34 (0.32)	
E18 - Both economic and noneconomic packages	0.70 (0.79)	0.64 (0.73)	0.42 (0.42)	0.42 (0.41)	0.40 (0.41)	

^aMedian values in parentheses

Note: A difference in mean probability values of 0.04 within a reserve category (down) and a difference of 0.06 across reserve categories is generally significant at the 5 percent level of confidence.

The problem alluded to previously of perhaps inflated mean probability values for a skew distribution, as was evident in item C1, can now be resolved. The most meaningful way to examine the effect of an economic incentive is to determine the expected reenlistment gain from the economic incentive. This can be easily determined by using item C1 as a base value and subtracting it from the mean probability values for the various incentives and incentive packages. This has been done in Table 1-9 to show the net gain in reenlistment probability that can be effected by each of the incentives listed. The ordering of incentives does not change, but the probability values now are more realistic values of the increment in reenlistment that might be expected if such an incentive were put into effect. These mean net gain values are the ones used in the cost effectiveness analysis.

It will be noted that the net gain reenlistment probability values for the noneconomic package approach being as high as that for the economic package for the IRR members and the Stby; they are slightly less for respondents in units. The relation and distribution of responses for the base case probabilities and for two other categories are illustrated for ARNG responses in Fig. 1-3. The three curves show the general gain that might be achieved with various incentives. For example, the bonus which has a mean reenlistment probability of 0.32 and a net gain of 0.13 definitely increases probability of reenlistment as is evident at the higher probability values. However the package of noneconomic incentives with a mean probability of 0.56 increases it substantially more over the bonus—over 20 percent of respondents are in the 90 to 100 percent probability categories.

Noneconomic Incentives

Part E of the survey asked that the respondent choose, from among 15 items listed, the three that he thought most important to him—that might have an effect on his attitude toward the RC. As is seen from the ordering of responses shown in Table 1-10, the most favored items were E1, domestic action; that is, increased involvement by the individuals and the units in community activities. Next was E5, relaxation of personal appearance and grooming standards in units; followed by E3, better utilization of skills in units, and E7, greater concern for the family of a RC member, and so on.

Table 1-9
 MEAN NET GAINS IN REENLISTMENT PROBABILITY
 FOR ECONOMIC AND NONECONOMIC INCENTIVES
 (Survey of Sixth-Year Personnel)

Item	Reserve Component category									
	ARNG		USAR		ATCG		RCG		Stby	
	M	R	M	R	M	R	M	R	M	R
D7 - Medical and dental benefits	0.31	1	0.27	1.5	0.25	1	0.23	1.5	0.24	1
D10- Income tax exemption	0.29	2	0.27	1.5	0.22	2	0.23	1.5	0.21	2
D8 - Home loan guarantee	0.26	3	0.25	3	0.17	4	0.19	4	0.16	4.5
D1 - Increased pay	0.24	4	0.20	4	0.12	10	0.11	9	0.12	8.5
D6 - Improved retirement	0.22	5	0.18	5	0.21	3	0.20	3	0.20	3
D9 - Proficiency pay	0.15	6	0.15	6	0.16	5.5	0.16	5	0.15	6
D4 - Educational benefits	0.13	8	0.13	7	0.15	7	0.15	7	0.16	4.5
D2 - Bonus	0.13	8	0.10	8	0.13	9	0.10	10	0.11	10
D3 - No loss during AT	0.13	8	0.08	9.5	0.16	5.5	0.15	7	0.13	7
D5 - SGLI	0.08	10	0.08	9.5	0.14	8	0.15	7	0.12	8.5
D12- Economic package	0.45		0.41		0.25		0.27		0.31	
E17- Noneconomic package	0.37		0.35		0.26		0.26		0.28	
E18- Both packages	0.51		0.49		0.31		0.31		0.34	

M=mean net gain, R=rank.

Note: Differences in mean probability values of 0.04 within a category (down), and of 0.06 across RC categories are generally significant at the 5 percent level of confidence. For example, for the ARNG D7 item 0.31 and D8 item 0.26 are significantly different from each other; the ARNG D7 item 0.31 is significantly larger than the ATCG D7 item 0.25.

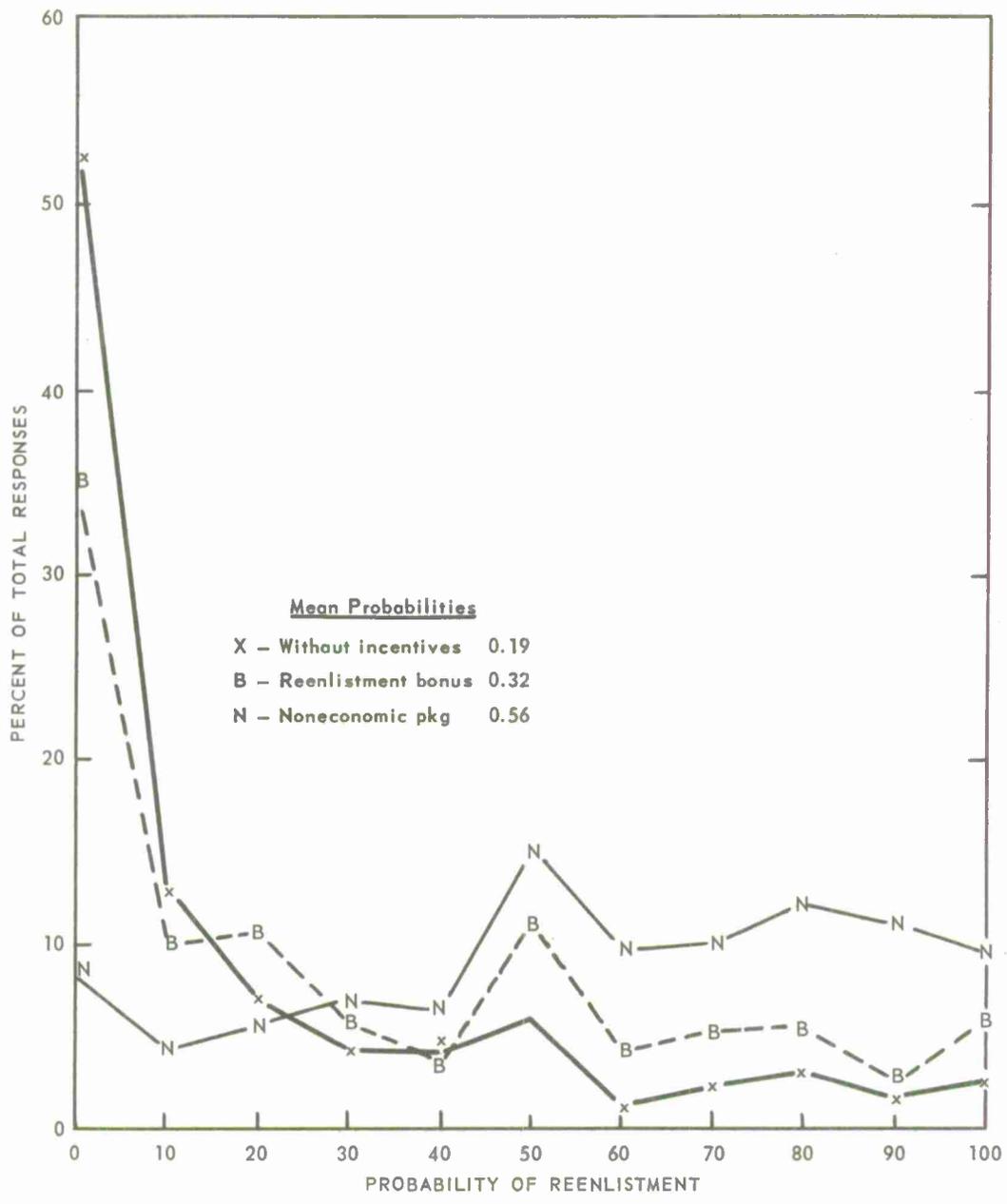


Fig. 1-3—Contrast of Distribution for ARNG under Three Conditions



Table 1-10
 PERCENTAGE^a CHOOSING EACH OTHER-THAN-ECONOMIC INCENTIVE
 (Part E - Survey of sixth-year personnel)

Item	Reserve Component category						
	ARNG %	USAR %	Rank	ATCG %	RCG %	Rank	Stby %
E1 - Domestic action	44	44	1	54	41	1	42
E5 - Grooming	34	40	2	15	22	6½	28
E3 - Utilization of skills	35	37	3	36	28	5	36
E7 - Family	35	27	4	37	38	3	34
E6 - Advancement	26	32	5	36	38	4	30
E9 - Morale	23	29	6	15	18	8	19
E13- Training	24	12	7	16	13	9	16
E15- IRR w/reduced benefits	16	18	8	44	41	2	39
E11- No MUTA	14	14	9	4	4	15	9
E4 - Social activities	14	13	10	15	22	6½	12
E10- Fewer assemblies	10	15	11	6	5	13	6
E2 - Public attitude	10	7	12	7	11	10	12
E12- AT with Active Army	6	6	13	9	6	11	4
E8 - Career counseling	4	3	14	5	5	14	8
E14- More WAC in RC	3	2	15	4	8	12	5

^a Percentages normalized to be equivalent across all RC categories.

Note: Generally a difference of 6 percent is significant at the 5 percent level of confidence.

The high rank accorded E15, IRR with reduced benefits (by the Control Groups), should be noted. Such willingness to affiliate with this RC has implications for a different kind of reserve force structure—a very large, less active force, on call.

The values listed in Table 1-10 are not probability values. They are the proportion of respondents choosing the various incentives listed. (Since sometimes a respondent selected only two items rather than three, these proportions have been normalized to the same scale so that they are equivalent across all RC categories.) Also to simplify the presentation in Table 1-10, the responses of those in units and of those in Control Groups have been ranked on the basis of the average of the two proportions for each of the two groups.

Note that the way in which the respondent chose these items was a forced-choice technique: he was required to select three items out of the 15. There is no indication in this requirement that these were very important to him, or whether he attached only moderate importance to them. However he was required in item E17 to note how those three items, when combined, would affect his potential for reenlistment in the RC. In doing this he attached a probability value to the effect of implementation of the items and, as was noted earlier, this probability value for the package of noneconomic incentives does show that the individual generally attached high importance to the noneconomic items. The strength of that importance becomes evident in the cost effectiveness evaluation of the items.

Table 1-11 shows the results of item E19, which asked what category the individual would prefer if all incentive packages were in force. As Table 1-11 shows, those who were in the ARNG units preferred the ARNG, those who were in the USAR units preferred the USAR.

Additional Questions

The last part of the survey included several questions that had been incorporated into an all-Service DOD survey⁷ two years ago, as well as two or three items of our own interest. The results may be summarized briefly.

There is some question as to what individuals perceive a fair economic incentive to be. The question was asked in item F1 as to what the

Table 1-11
 RESERVE COMPONENT CATEGORY PREFERRED
 IF ALL INCENTIVE PACKAGES IN FORCE
 (Item E19 - Survey of Sixth-Year Personnel)
 (Percent)

Preferred category	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
ARNG	72	1	5	7	5
USAR	4	67	18	16	14
IRR	9	14	32	31	32
None	15	18	45	46	49

Chi-square = 1236.63, df = 12; p = <0.01

respondent would estimate a fair yearly bonus to be. The responses are shown in Table 1-12. They center in general in the category \$500 to \$749. The mean value when calculated shows the yearly bonus to be about \$570 for ARNG and USAR unit personnel, a value considerably higher than the \$500 contemplated in the survey for a 3-year enlistment. The lack of endorsement of a \$500 bonus for 3 years (item D2) becomes evident when the estimates shown in Table 1-12 are considered. It is of interest also to see that the values change among RC categories, with those who are not serving in RC units estimating a higher annual bonus (note the higher values in the categories from \$1000 and larger especially).

Item F2 (Table 1-13) asked whether or not a respondent thought he had ever been denied benefits in civilian life and civilian employment because of his RC affiliation. The results indicate that about 15 percent of those in units feel that they have been denied benefits. This finding is in substantial agreement with the DOD survey in which 13 percent indicated that they had had similar experience.

Item F3 (Table 1-14) inquired as to what the employer's leave policy was. It is seen that about 50 percent of those persons in units either get leave with pay or the employer pays the difference in any loss that might be suffered.

In Item F4 (Table 1-15) the motivation for entering service is examined. It is seen that the percent of voluntary enlistments or affiliations ranges from 12 to 15 percent for those persons in the ARNG and USAR units, which is in general agreement with past experience with respect to voluntary enlistment. It is evident also from Table 1-15 that the REPs in the ARNG and USAR units are indeed different in their motivation for military service from the persons in the Control Groups, as is evident from the small response to the first two categories dealing with voluntary enlistment.

Item F5 (Table 1-16) also examines the reasons for the RC affiliation. It is evident again that considering the third and fifth categories, from 85 to 90 percent of the respondents in ARNG and USAR units were draft motivated.

Item F6 (Table 1-17) asked if the respondent would encourage his friends to enlist in the ARNG or USAR. It is gratifying to see that 34

Table 1-12
 ESTIMATE OF FAIR YEARLY BONUS
 (Item F1 - Survey of Sixth-Year Personnel)
 (Percent)

Range of estimate	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
\$ 1-249 ^a	20	23	20	17	20
250-499	27	25	18	12	16
500-749	34	30	26	32	27
750-999	5	4	6	7	9
1000-1499	10	13	16	16	14
1500-1999	1	2	3	2	6
2000 and over	2	2	11	14	8
Approximate mean	570	588	780	842	772
Chi-square = 113.61, df = 24; p = < 0.01					

^aSome estimates of "no bonus," but not able to separate them in coding from no response.

Table 1-13
 PERCENT DENIED BENEFITS BECAUSE OF RC AFFILIATION
 (Item F2 - Survey of Sixth-Year Personnel)

Denied benefits	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
No	69	74	89	95	94
Not sure	16	12	8	4	3
Yes, in past years	7	5	2	1	2
Yes, 3 or 4 years ago	6	5	<1	<1	<1
Yes, 5 or 6 years ago	2	4	<1	<1	<1
Chi-square = 155.24, df = 16; p = <0.01					

Table 1-14
 CIVILIAN EMPLOYER'S LEAVE POLICY FOR AT
 (Item F3 - Survey of Sixth-Year Personnel)
 (Percent)

Leave policy	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
2 weeks' leave w/pay	20	24	12	17	19
2 weeks' leave w/o pay	30	28	28	27	28
2 weeks' leave, pays difference	23	30	15	17	20
Must use vacation leave	15	8	18	13	10
Self-employed or unemployed	13	10	27	25	23
Chi-square = 89.77, df = 16; p = <0.01					

Table 1-15

VOLUNTARY ENTRY INTO MILITARY SERVICE
 (Item F4 — Survey of Sixth-Year Personnel)
 (Percent)

Would have entered service if no draft	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
Yes, definitely would have entered	4	4	10	19	12
Yes, probably would have entered	11	8	18	22	16
No, probably would not have entered	36	38	30	24	30
No, definitely would not have entered	34	39	22	18	25
Have no idea what would have done	15	12	21	17	17

Chi-square = 162.98, df = 16; p = < 0.01

Table 1-16
 PRIMARY REASON FOR ENTRY INTO ARNG OR USAR
 (Item F5 — Survey of Sixth-Year Personnel)
 (Percent)

Reason	Reserve Component category				
	ARNG	USAR	ATCG	RCG	Stby
Involuntarily assigned from active forces	1	2	83	79	85
To learn a trade or skill	<1	<1	<1	1	<1
Went in RC to avoid draft	54	64	4	1	1
To serve country	2	1	2	5	1
To fulfill obligation at time of choice	30	26	4	6	4
Education and training	-	<1	-	1	<1
Friends were in	5	1	-	-	-
Supplement income	1	1	-	1	-
Retirement benefits	<1	<1	1	<1	-
Travel, new experience	1	-	<1	1	-
Become mature and self- reliant	-	<1	-	1	<1
Other	6	4	4	5	7

Table 1-17
 ENCOURAGEMENT OF FRIENDS TO ENLIST IN RC
 (Item F6 — Survey of Sixth-Year Personnel)
 (Percent)

Would you encourage friends to reenlist	Reserve Component category				
	ARNG	USAR	ATGG	RCG	Stby
Definitely would not	21	27	24	16	19
Probably would not	25	28	16	20	27
Not sure	20	18	33	32	33
Probably would	24	9	20	25	15
Definitely would	10	9	7	8	7

Chi-square = 67.80, df = 16; p = <0.01

percent of the ARNG and 19 percent of the USAR units indicated they probably or definitely would encourage such participation. Also a high proportion in the Control Groups indicates unexpected support for the RC. A number of respondents suggested advertising as a way to gain RC members.

Sensitivity of Results

Certain assumptions are implicit in survey data. First, it is assumed that the sample is representative of the population surveyed, and second, it is assumed, when response has not been complete, that those responses received are representative of the sample.

The RCPAC states that the first assumption is correct, that the sample drawn from each of the five RC categories is random and presumed representative of a category. When an incomplete response is received, one may question the validity of the response. (It was demonstrated at the beginning of this chapter, in the discussion of the sample, that there was no bias in the return from the standpoint of the part of the nation to which the survey was sent.)

As one extreme, it could be postulated that only those more favorably disposed toward the RC responded, and that those not responding were not favorably inclined, or were disinterested, or were too busy with their jobs, families, and (even) RC duties to respond. One may infer something of the favorable or unfavorable attitude of the respondents by comparing responses to the reenlistment questions with actual reenlistment experience. The actual reenlistment of personnel (completing their first 6-year enlistment) in ARNG and USAR units during November 1971 was at rates of about 11 and 7 percent, respectively.* It will be noted from Table 1-7 that these rates correspond roughly to the "definitely will" plus half of the "probably will" of the personnel surveyed and, from Table 1-6, those respondents who indicated 70 to 100 percent probability of reenlisting. Such values from Tables 1-6 and 1-7 would be reasonable predictions of reenlistment.

On the assumption that unit RC personnel in November would behave as 6-year personnel, predicting now what their reenlistment behavior would be 6 to 12 months from now, it is seen that the correspondence is very

* Personal communication from COL Paul M. Payson, Dept of Army, CORC, 1972.

close. All of which leads one to believe that the personnel responding in the sample were characteristic of the total population—that they were not only those respondents favorably disposed toward the RC. Otherwise the conjectured survey reenlistment figures might be expected to be too high.

As was noted earlier, however, the mean probability of reenlistment values associated with the probability scale estimates in Parts C, D, and E may be overestimates of reenlistment intention. This overestimation, however, is judged to be a function of the probability scale kind of measure. It was pointed out that such difficulties could be overcome by using mean net gains in probability (the probability of reenlistment associated with an incentive, minus question C1, the probability of reenlistment without incentives). It appears, considering the actual reenlistment rates of obligors just completing their first 6 years, that the mean, uncorrected probability of reenlistment values are about 8 percentage points too high (for the ARNG units, 0.19 minus 0.08 is 0.11; for USAR units, 0.15 minus 0.08 is 0.07), a fact not related to the representatives of the sample but rather to the probability scale technique.

A longitudinal study of RC members who are just completing their obligations such as these surveyed, is planned beginning September 1972. The purpose of such a study is to determine the proportion that did indeed reenlist, as compared with the portion that indicated they would reenlist in the RC. It may enable prediction of reenlistment potential with greater reliability than before, and should better identify areas of ambiguity about attitudinal estimates concerning reenlistment.

There are disproportionately small numbers of returns from Negroes and probably from all races in lower socioeconomic levels in the ATCG and the Stby. (Negroes could be identified because their proportion in the Nation and in the Armed Forces is known.) Thus, while about 10 percent Negro respondents should be expected in these groups, there are only 6 and 5 percent, respectively. Those Negroes that did respond indicated a probability of reenlistment about twice as high as for whites in the same RC categories. This suggests that should there be a higher proportion of Negroes in the responding sample, the probability of reenlistment values would be slightly higher.

The survey was directed to personnel in their sixth year of obligation whose age and attendant financial, family, and educational situations are relatively narrowly defined. For example, nearly 90 percent of the respondents fall within the age range of 24 to 29; 75 percent are married, just starting families.

Further, the sample of persons in RC units consists of REPs whose motivations for RC service may not be the same as the entire range of potential reenlistees. There are broad gaps in knowledge of the full personnel supply range. It was speculated in the earlier interim report on this study that there may be value differences between the RC member and those who would make the Army a career. The survey sample has focused on REPs in ARNG and USAR units, REPs whose ETS is imminent. The apparent relative enthusiasm of these respondents does tend to confirm that there are motivational differences, as well as marked background differences. The citizen-soldier has had more education, probably comes from a more affluent environment, and works at a higher occupational level.

The write-in responses in the survey confirm the survey results reported. Great concern is expressed by those in units about the effect of RC duty on free time and family life. The concern expressed is that the time spent in ARNG and USAR unit assemblies is not spent in worthwhile fashion—leadership is perceived to be poor, training and instruction to be inadequate and repetitious. They suggest that some of their time could be spent in service to the community without loss of their military skills—which would help correct some of the problems of boring training and give them feelings of pride, satisfaction, and accomplishment—and which would make their RC affiliation more worthwhile.

The matter of personal appearance and grooming standards is frequently commented upon. Respondents continue to ask why, for 2 to 4 days a month of RC duty, they must for the entire month be required to accept the grooming standards of an Active Army soldier.

Little comparable survey information is available as current as or of the type developed in this survey. Most relevant is the IRR study conducted for CAR.⁸ Two items in that study might be compared with results from the present survey. One group surveyed in the IRR study was composed of USAR unit members who were 12 months or less from ETS

to determine the acceptability of selected economic incentives. The relation between the results of that study (expressed in terms of net gain to reenlistment) and the present survey are as follows:

IRR study incentive	Net gain	
	IRR ⁸ study	RAC survey
\$1250 income tax exemption	.288	.27
\$200 annual bonus (as contrasted with a \$500 3-year bonus)	.155	.10
Retirement at age 50	.151	.18
\$200 annual educational benefit (as contrasted with \$500 3-yr educational benefit)	.100	.13
SGLI	.079	.08

A close agreement is seen for those incentives that were worded the same in both surveys. The disagreement is not great for the bonus and educational benefits that were not the same—the bonus is viewed more favorably and the educational benefit less favorably in the IRR study. There is similar comparability for IRR respondents in both studies:

IRR study incentive	Net gain	
	IRR ⁸ study	RAC survey
\$200 annual bonus	.048	.115
SGLI	.105	.145
Additional educational benefits	.085	.150

The comparison in this instance shows mostly that the values are low in both surveys. In this case, the populations sampled were quite different in that the IRR study samples all IRR personnel, and the RAC survey considered only those in the sixth year of their initial obligation.

Survey questions took their final form in November 1971. The Army is in a period of change. Interests and options have changed since that time; survey questions may not be pointed as precisely as desired at the alternatives now current.

As a measure of the attitudes and motivations of REP-63 personnel in the sixth year of their military obligation, the survey results appear

to be adequate, perhaps overestimating unadjusted reenlistment probabilities slightly. It should be recognized, however, that this REP sixth-year population represents a restricted range (in terms of age, family status, education, and income) as a source of NPS personnel to ARNG/USAR units. The same sort of information is needed about all personnel eligible for RC unit enlistment

SURVEY OF FIRST-YEAR RC PERSONNEL

The November survey concentrated on reenlistment incentives for men who were just about to complete their sixth year of obligated service. However, for input to the dynamic model, information on original enlistments of persons of the same general level of ability was required. It was decided that an additional survey of persons who had just entered ARNG and USAR units, but had not yet completed their 4 to 6 months* of AD, and hence were new to the RC, would be appropriate subjects to answer questions concerning incentives for enlistment in the RC. Resources prohibited the administration of the new survey as extensively as the earlier one; no follow-up letters were sent out.

A random sample of 990 young men was developed by USARCPAC from among the 11,000 persons in the first year of their obligated service in ARNG and USAR units. Surveys were mailed to the sample early in February 1972. Approximately 300 surveys were returned and 226 were used in the analysis.

A copy of the survey is in Annex B1. The survey instrument took the same general form as that administered to the sixth-year personnel, but concentrated on motivation for enlistment in the RC rather than reenlistment.

Biographical Information

Throughout the analysis ARNG and USAR unit personnel are considered separately. No distinction is made as to length of service of the personnel surveyed except in the discussion of economic incentives. It is recognized, however, that the dynamic projection model described in App C uses as input information about personnel who have had 1 year or less of RC service. Pertinent data relating to background information

* Responses indicated that about one-fourth of the respondents had already been on AD.

are given in Table 1-18. The data presented frequently will be contrasted with similar data for the sixth-year personnel shown in Table 1-4.

A1—Grade. The ARNG and USAR unit personnel differ significantly with respect to the grades they hold. Grade levels tend to be higher in the ARNG units, with about 69 percent of the ARNG personnel in Grade E3 or higher, as contrasted with 48 percent of USAR unit personnel. This grade distinction appears to have something to do with the character of ARNG and USAR units rather than months of service, as the next item will show.

A2—Months of Service in the RC. From 75 to 80 percent of the respondents in both types of units have been in the RC 12 months or less. This leaves a considerable number, however, who have been in for a longer period, and this tends to discount the usefulness of the NPS concept. The dynamic model uses only that portion of the sample having 12 months or less of service. There is no significant difference between the two groups with respect to the amount of time that they have been in service.

A7—Civilian Educational Level. As also was evident in the survey of sixth-year personnel, USAR unit personnel have attained somewhat higher educational levels than ARNG personnel. About 68 percent of ARNG personnel have had at least some college training as contrasted with 84 percent of USAR unit personnel. The difference between the ARNG and USAR is significant at the 0.01 level of confidence.

A8—Are You Now in School? About 27 percent indicated that they were in college or graduate school. The percentage applied to both ARNG and USAR.

A9—If Now in School, What Do You Hope to Do When You Finish? About 80 percent of those in school indicated professional or white-collar aspirations after completing school.

A10—Training Assemblies during Past Year. This turns out not to be a very meaningful question since the respondents have been in units for varying lengths of time, and often not a full year. About 70 percent indicated less than 30 assemblies for pay, and very few indicated any assemblies not for pay.

A11—Marital Status. Roughly 60 percent were single, as contrasted with only 15 percent of unit personnel still single among the sixth-year personnel.

Table 1-18

PERCENTAGE DISTRIBUTION OF RESPONSES TO PART A, BACKGROUND INFORMATION
(Survey of First-Year Personnel)

Item	Reserve Component	
	ARNG	USAR
Number of responses	92	134
<u>A1 - Grade</u>		
E-1	5	16
E-2	25	36
E-3	56	35
E-4 or higher	13	13
Chi-square = 12.72, df - 3; p = <0.01		
<u>A2 - Months of Service in Guard or Reserve</u>		
12 or less	80	76
More than 12	20	24
Chi-square = .60, df - 1; NS		
<u>A3 - Months on Waiting List</u>		
0-2	67	66
3-4	11	15
5-6	6	4
7-12	10	12
13-18	4	2
More than 18	2	1
Chi-square = 3.60, df - 5; NS		
<u>A4 - MOS</u>		
0 - Special assignment	4	3
1 - Tactical operations	33	5
2 - Missile and fire control electronic maintenance	1	1
3 - General electronic maintenance	9	3
4 - Precision maintenance	1	1
5 - Auxiliary services	2	4
6 - Motors	18	13
7 - Clerical	18	26
8 - Graphics	-	4
9 - General technical	4	13
None, or didn't know	9	27
Chi-square = 37.120, df - 9; p = <0.01		
<u>A6 - Age (years)</u>		
18-19	16	16
20-21	41	24
22-23	33	45
24-25	10	14
Chi-square = 7.71, df - 3; NS		

Table 1-18 (continued)

Item	Reserve Component	
	ARNG	USAR
<u>A7 - Educational Level</u>		
High school graduate or less	32	16
Some college	39	35
College graduate	22	40
Postgraduate study	8	9
Chi-square = 14.31, df - 3; p = < 0.01		
<u>A8 - Are You Now in School?</u>		
College or postgraduate study	28	27
No	72	73
Chi-square = .63, df - 2; NS		
<u>A11 - Marital Status</u>		
Single	58	67
Married	41	31
Separated or divorced	1	2
Chi-square = 2.38, df - 2; NS		
<u>A12 - Number of Children</u>		
None	82	91
1	17	7
2	1	2
Chi-square = .88, df - 2; NS		
<u>A13 - Civilian Occupation</u>		
Professional or managerial	14	29
White-collar	7	15
Blue-collar	53	34
Student or unemployed	25	22
Chi-square = 11.0, df - 5; NS		
<u>A14 - Employment Status</u>		
Self-employed	6	2
Employed by Federal government	15	16
Employed by private firm	44	53
Full-time student	20	16
Part-time student/part-time employed	7	3
Unemployed	8	9
Chi-square = 5.13, df - 5; NS		
<u>A16 - Present Annual Income, Excluding Military Pay</u>		
Less than \$4,000	45	41
\$ 4,000-6,000	22	14
6,000-8,000	19	20
8,000-10,000	7	12
10,000-12,000	3	6
More than \$12,000	-	-
Chi-square = 5.60, df - 5; NS		

Table 1-18 (continued)

Item	Reserve Component	
	ARNG	USAR
<u>A17 - Estimate of Value of Annual RC Pay and Benefits</u>		
Less than \$500	44	56
\$500- 700	39	32
700- 900	12	7
900- 1100	2	2
Chi-square = 9.19, df - 4; NS		
<u>A19 - Religious Preference</u>		
Jewish	1	3
Protestant	58	50
Roman Catholic	32	26
None	3	11
Other	6	10
Chi-square = 7.13, df - 4; NS		
<u>A20 - Race</u>		
American Indian	-	-
Caucasian	97	98
Negroid	1	2
Oriental	1	-
Other	1	-
Chi-square = 3.32, df - 3; NS		
<u>A23 - Type of Community in Which Now Living</u>		
Farm	13	9
Small town	37	26
Suburb	12	28
City	37	37
Chi-square = 9.58, df - 3; NS		
<u>A24 - Present Residence - Region of Nation</u>		
New England	10	2
Middle Atlantic	11	14
East North Central	12	20
West North Central	8	17
South Atlantic	18	25
East South Central	16	4
West South Central	13	3
Mountain	9	5
Pacific	3	10
Other	-	-
Chi-square = 39.98, df - 8; p < 0.01		

Note: On this and subsequent tables of response frequencies, the proportions may not total 100 percent due to rounding.

A12—Number of Children. Thirteen percent indicated that they had children as contrasted with over 50 percent in the survey of sixth-year personnel.

A13—Civilian Occupation. While not quite statistically significant, USAR unit personnel indicated a higher occupational level, with some 43 percent indicating managerial or white-collar occupation, as compared with 22 percent of ARNG personnel. The same kind of differences in occupational level were evident in the November survey.

A14—Employment Status. There were no significant differences between ARNG and USAR unit respondents respecting present employment status. As noted earlier, a high proportion of these respondents are full-time students. The proportion of unemployed is higher than in the November survey, with some 9 percent indicating that they were unemployed in this survey as compared with 1 percent in the earlier survey.

A15—Assigned as Technician to RC Unit. Six of the respondents indicated that they were assigned as technicians to RC units. In the survey of sixth-year personnel this portion was not used in the sample analyzed, but they have not been excluded from this current sample.

A16—Present Annual Income Excluding Military Pay. The income levels of the obligors in their first year is considerably less than that of sixth-year personnel, as could be expected. While it appears that there are differences between ARNG and USAR unit personnel with respect to income level (a difference roughly of \$600 to \$700 annually), with the USAR personnel having a higher income level, the differences are not statistically significant.

A17—Estimate of Value of RC Pay and Benefits. There is no significant difference between the two groups with respect to their perception of the monetary value of military pay and benefits, although Guard estimates are somewhat higher (which is in keeping with the higher grades of the ARNG respondents). The average amounts estimated are somewhat less than those estimated by the men who had been in the RC for 5 years, a result also which might be expected, since the older men have higher rank and more longevity.

A18—Family Income. This item is not very meaningful, inasmuch as a small proportion of the respondents had families they were supporting.

Some respondents also may have misinterpreted the question and, if living with parents, shown their parent family income level.

A19—Religious Preference. There are no differences between the two groups with respect to religious preference. There is a suggestion that the percentage of Protestants has declined from the survey of sixth-year personnel and that the proportion of Roman Catholics is slightly higher. There also seems to be a higher proportion of individuals who claim no denominational preference, which is in agreement with national trends in this regard among the younger persons especially.

A20—Race. There are no differences between the two groups respecting race. Again, as in the survey of sixth-year men, the percentage of Negroes in ARNG and USAR units is only 1 to 2 percent, much less than their proportion in the population generally.

A23—Type of Community in Which Now Living. Items A21 and A22 are not commented on inasmuch as the younger individuals in this sample have moved very little and generally have remained in the area indicated in A23 and A24. The difference between the two groups in item A23 is not quite statistically significant, yet marked trends noted in the first survey are again apparent. That is, 50 percent of the respondents in ARNG units live in farm or small-town environments, as contrasted with 35 percent of the USAR unit respondents. A higher proportion of USAR unit respondents live in suburbs.

A24—Region of US in Which Now Living. There is a significant difference between the two groups with respect to the area of the nation in which respondents now claim residence. A higher proportion of USAR unit respondents come from the East North Central, West North Central, and the Pacific states, and a lower proportion are from the New England, East South Central, and West South Central areas. These differences between the two groups are significant. Some of these same differences were evident in the first survey: the proportions in New England were essentially the same as before, the proportions in the West North Central vary in opposite directions. The reason for such variation cannot be accounted for.

Satisfaction and Importance of Various Aspects of RC Service

Part B of the survey instrument lists nine different aspects of RC service. The respondent indicated on a 7-point scale the degree of his

satisfaction with each aspect of service—1 being least satisfying, 7 most satisfying, and 4 being the midpoint of the scale. After judging satisfaction with each item, the respondent indicated the relative importance of each by ranking them in importance—1 being most important and 9 least important. The mean of the satisfaction and importance values are shown in Table 1-19.

In contrasting respondents from ARNG and USAR units, it will be noted that in all respects ARNG personnel are more satisfied with RC service than are USAR unit personnel. In six of nine items, the differences between them are statistically significant; only B8, employer's attitude, B5, effect of RC on family life, and B7, effect of RC on vacation time, are not significantly higher for ARNG respondents. The order of greatest satisfaction by personnel in their first year as compared with those in their sixth year is not essentially different. Most satisfaction for the older and the younger is with B2, personal associations, and B8, employer's attitude.

Three of the mean importance rankings are significantly different between the ARNG and USAR unit respondents: B1, assigned duties, B7, effect of RC on vacation time, and B6, effect of RC duty on free time. Duty assignment is more important for ARNG personnel, and effect on free time and vacation time is more important for USAR unit personnel. As was true with satisfaction scores, the importance rankings are in generally the same order as they were for the sixth-year men, with economic benefits and the effect of RC duty on family and free time ranking most important.

The contrast between the first- and sixth-year men (ARNG and USAR combined) with respect to the importance and satisfaction scores is shown graphically in Fig. 1-4, adding first-year results to those for the older reservists. The results are generally the same, but with greater satisfaction with the RC expressed by the younger men. (It was also found that inclination toward reenlistment in the RC is somewhat greater than for the sixth-year men.)

Motivation for RC Service

In Part C of the survey respondents were asked two questions about their motivation for service with RC. The first, C1, dealt with the probability that the respondent would have enlisted in the ARNG or USAR

Table 1-19

MEAN SATISFACTION AND IMPORTANCE VALUES FOR RC SERVICE
(Part B - Survey of First-Year Personnel)

Item	ARNG		USAR	
	M	SD	M	SD
<u>Satisfaction Scores</u>				
B2 - Personal associations in unit	5.4	1.45	4.5	1.53 ^a
B8 - Employer's attitude toward RC	4.8	1.71	4.4	1.80
B1 - Assigned duties	4.4	1.56	3.4	1.61 ^a
B6 - Effect of RC on free time	4.3	1.84	3.7	1.83 ^a
B3 - Economic benefits	3.9	1.78	3.1	1.47 ^a
B4 - Acceptance of RC in community	3.9	1.58	3.1	1.56 ^a
B5 - Effect of RC on family life	3.8	1.75	3.4	1.46
B7 - Effect of RC on vacation	3.7	1.90	3.5	1.79 ^a
B9 - Transfer of skills	3.7	1.83	3.0	1.90 ^a
<u>Importance Ranking</u>				
B3 - Economic benefits	3.8	2.54	3.9	2.44
B5 - Effect of RC on family life	4.1	2.30	3.6	2.39 ^a
B6 - Effect of RC on free time	4.3	2.22	3.7	2.13 ^a
B2 - Personal associations in unit	4.5	2.38	4.7	2.40
B9 - Transfer of skills	5.3	2.79	5.7	2.66 ^a
B1 - Assigned duties	5.3	2.43	6.0	2.36 ^a
B7 - Effect of RC on vacation	5.5	2.33	4.8	2.31 ^a
B8 - Employer's attitude toward RC	5.6	2.34	5.5	2.35
B4 - Acceptance of RC in community	5.9	2.27	6.2	2.43

M=mean satisfaction, SD=standard deviation

^aStatistically significant difference at 5 percent level in mean scores.

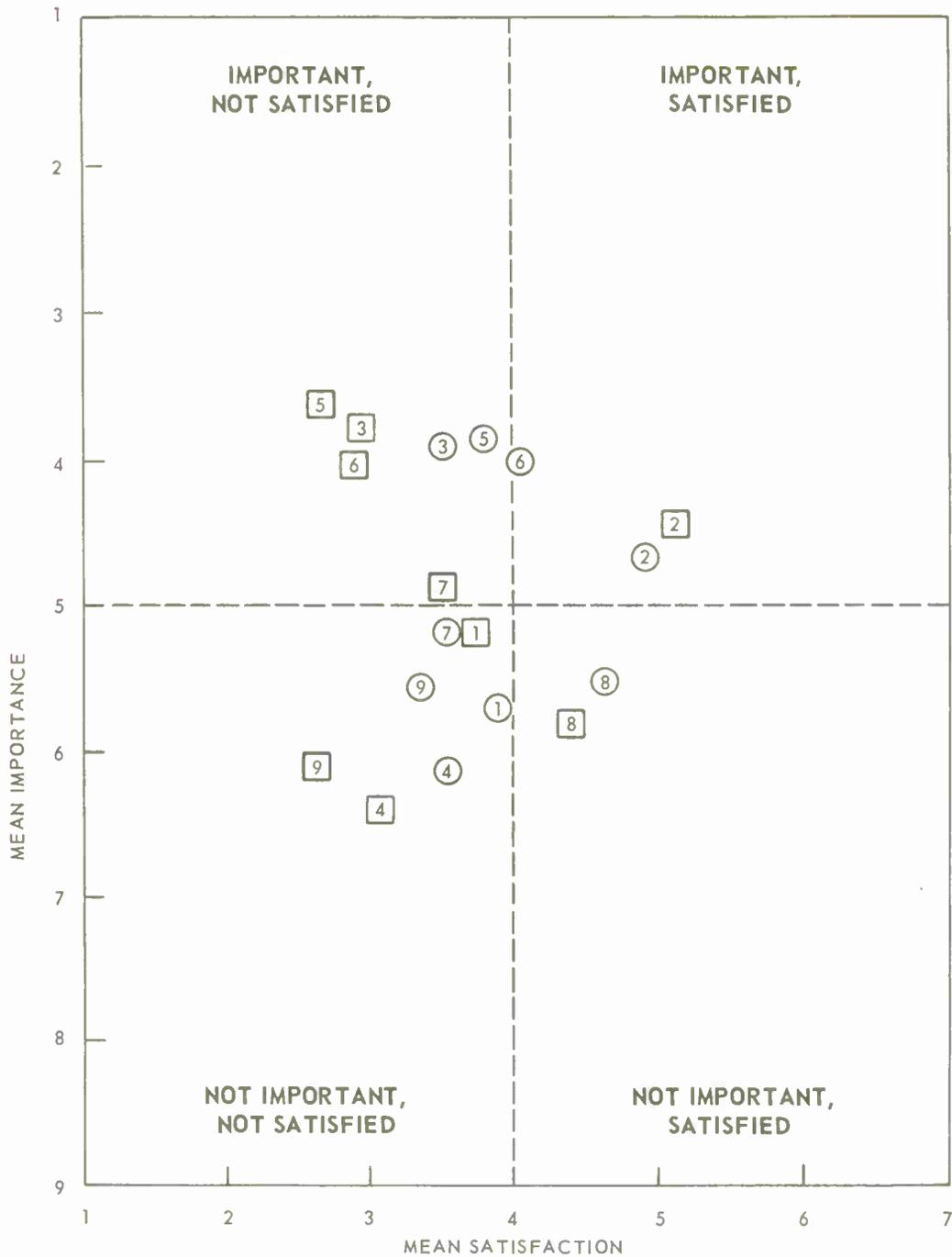


Fig. 1-4—Relation of Mean Satisfaction and Importance Values for Various Aspects of RC Service (ARNG and USAR Units Combined)

1, assigned duties; 2, personal associations; 3, economic benefits; 4, acceptance by community; 5, effect on family life; 6, effect on free time; 7, effect on vocation; 8, employer's attitude; 9, transfer of skills.

○ = first-year personnel

□ = sixth-year personnel

had there been no military draft. The second question, C2, asked the respondent to assess the probability of his reenlistment in the ARNG or USAR when his tour of obligated service was over. As in the previous survey, the final question of the survey, F8, asked the respondent to answer the same question, C2, concerning the probability of his reenlistment in the ARNG or USAR, but expressing an answer on a 5-alternative scale rather than a probability scale. A relation was drawn for the sixth-year men between the 5-alternative scale and the 11-alternative probability scale, the purpose being to describe in word terms the meaning of the probability scale in quantitative terms.

The distribution of responses for ARNG and USAR personnel to questions C1 and C2, as well as the distribution of responses to question F8, are shown in Tables 1-20 and 1-21 respectively. It is seen that the probability of original enlistment in the ARNG and USAR units is about 0.16 across groups. The ARNG shows a mean probability of enlistment of 0.21 and the USAR unit respondents a value of 0.12. These values are somewhat higher than the responses to draft motivation question F4, which will be discussed later, but which asks the probability of entry into military service of any kind had there been no draft.

Question C2 asked for an estimation of the probability of reenlistment in the RC at the end of the obligated tour. The values here average 0.27 for ARNG and 0.18 for USAR, values that are somewhat higher than those expressed by personnel in their sixth year. The younger persons are more favorably inclined toward continued association with the RC.

In Fig. 1-5, the same relation shown for the sixth-year responses demonstrating similarities and differences between the two kinds of scales is compared with the first-year responses. The results for obligors in their sixth year are shown as the solid upright bars, with an X marking the general center of the bar, and the curve fitted by inspection showing the line of best fit. The dashed lines with circles in them represent the values for the first-year respondents. As can be seen, the results from personnel in their first year are nearly the same as those for personnel in their sixth year. The best fit for the two sets of data appears to be an ogive, as fitted by inspection.

Table 1-20

PERCENTAGE DISTRIBUTION OF RESPONSES TO PROBABILITY OF ENLISTMENT
AND REENLISTMENT WITHOUT ADDITIONAL INCENTIVES

(Items C1 and C2 - Survey of First-Year Personnel)

Probability	C1 ^a		C2 ^b	
	ARNG	USAR	ARNG	USAR
0	51	72	36	46
10	10	6	10	16
20	3	4	10	9
30	12	4	6	9
40	5	2	5	2
50	5	6	20	10
60	1	1	3	1
70	4	2	3	4
80	2	2	2	2
90	-	1	2	2
100	5	2	2	-
Mean	.21	.12	.27	.18
SD	2.91	2.39	2.77	2.36
Chi-square = 15.70, df - 10; NS		Chi-square = 13.22, df - 10; NS		

^aProbability of enlistment without draft.

^bProbability of reenlistment

Table 1-21

PERCENTAGE DISTRIBUTION OF RESPONSES TO 5-ALTERNATIVE ENLISTMENT QUESTION

(Question F8 - Survey of First-Year Personnel)

Reenlistment intention	Reserve Component	
	ARNG	USAR
1 - Definitely will not	20	30
2 - Probably will not	25	29
3 - Not sure	37	30
4 - Probably will	14	8
5 - Definitely will	3	2
Mean	2.6	2.2
SD	1.06	1.04
Chi-square = 5.33, df - 4; NS		

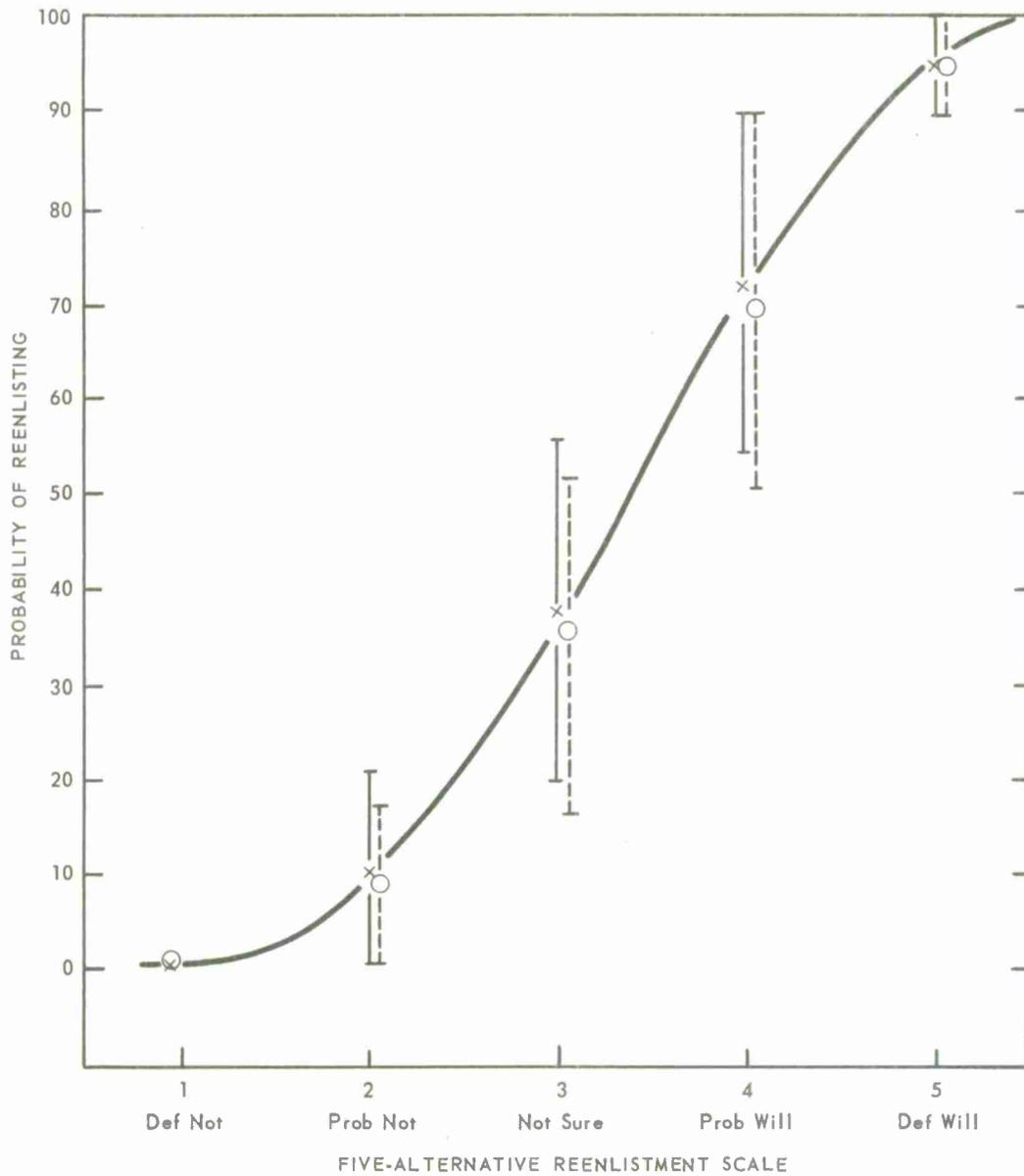


Fig. 1-5—Relation between Probability Scale and Five-Alternative Scale in Assessing Reenlistment Probability

x = midpoint of probability estimate for sixth-year men

o = midpoint of probability estimate for first-year men

Economic Incentives toward Enlistment in RC

The estimated effect of each of the 11 different economic incentives that might have induced an individual to enlist had there been no military draft is shown in Table 1-22. The mean probability values for ARNG and USAR unit respondents are broken out into those respondents who had 12 months or less of service and those who had more than 12 months. The numbers in the groups having more than 12 months of service are rather small, and less reliance can be placed upon them. It is seen that in general the probability of enlistment for ARNG personnel is somewhat higher than it is for USAR unit personnel. The standard deviations for most of these mean probability figures range between 2.5 and 3.5, so that even though the differences between the two different periods of length of service appear to be rather large, the differences are seldom statistically significant. It will be noted that those personnel in ARNG units who have been in more than 12 months appear to be more inclined toward enlistment in the ARNG than those who have been in 12 months or less. Conversely, however, for the USAR unit personnel, those who have been in more than 12 months are less inclined toward enlistment. There is little explanation why ARNG personnel should be higher in their enlistment inclination and USAR unit personnel lower. Combined data for ARNG and USAR are probably the best estimates of enlistment potential for each of the various incentives.

The same caution should be observed respecting the interpretation of the mean probability values as being the true mean probability, as was noted for the sixth-year personnel; that is, there is a strong possibility of respondent constant error in estimate of enlistment or reenlistment intention. In sixth-year data it was established that this constant error amounts to about 0.08. There are no good data available which establish the probability of original enlistment in the RC if there were no draft, and it is difficult to determine just how large the constant error might be in this case. For lack of better evidence, it could be assumed that the error is the same for enlistment of personnel in their first year as was the error developed for reenlistment of personnel who had just completed their sixth year; that is, 0.08.

Table 1-22

PROBABILITY OF ENLISTMENT FOR VARYING INDUCEMENTS
(Survey of First-Year Personnel)

Item	ARNG			USAR			All ARNG and USAR responses
	12 months or less	More than 12 months	All responses	12 months or less	More than 12 months	All responses	
Number of responses	72	18	90	99	32	131	221 ^a
C1 - Probability of original enlistment - no draft	0.18	0.32	0.21	0.14	0.07	0.12	0.16
C2 - Probability of reenlistment in RC	0.23	0.38	0.27	0.21	0.09	0.18	0.22
D1 - Increased pay	0.30	0.37	0.31	0.24	0.14	0.22	0.26
D2 - \$600 bonus for enlistment	0.34	0.35	0.34	0.29	0.21	0.27	0.30
D3 - No economic loss during AT	0.44	0.48	0.45	0.36	0.25	0.33	0.38
D4 - BAQ	0.33	0.34	0.33	0.26	0.15	0.23	0.27
D5 - Educational benefits of \$500	0.51	0.54	0.51	0.46	0.34	0.43	0.46
D6 - SGLI	0.33	0.44	0.35	0.32	0.18	0.29	0.31
D7 - Improved retirement benefits	0.46	0.56	0.48	0.34	0.20	0.31	0.38
D8 - Medical and dental benefits	0.52	0.56	0.52	0.43	0.31	0.40	0.45
D9 - Home loan guarantee	0.49	0.61	0.51	0.47	0.34	0.44	0.47
D10 - Proficiency pay	0.40	0.51	0.42	0.38	0.20	0.33	0.37
D11 - Income tax exemption of \$1250	0.50	0.58	0.52	0.41	0.37	0.40	0.45
D13 - Economic package	0.63	0.63	0.63	0.54	0.44	0.52	0.56
E16 - Noneconomic package	0.50	0.56	0.51	0.50	0.44	0.48	0.49
E17 - Both packages	0.64	0.67	0.64	0.60	0.49	0.58	0.60

^aNumber of surveys is five less than for the total sample because of incomplete response on some of the questions; 221 represents complete response on all probability questions.

However, that kind of error in estimate is not of great consequence when one is dealing with the probable effect of the various economic incentives to enlistment or reenlistment if one uses a probability of enlistment value which reflects the net gain associated with each incentive (net gain is defined as the mean probability of enlistment for an incentive minus the mean probability of enlistment with no incentive). Such mean net gain values have been computed and are listed in Table 1-23. It is seen that when the net gain figures are used, the differences between the less-than- and more-than-12 months groups in both the ARNG and USAR generally disappear. The net gain values are those used in the cost effectiveness and simulation models described in other parts of this report.

The various economic incentives have been arranged in Table 1-23 in order of their presumed attractiveness to obligors in their first year on the basis of the mean net gain in enlistment probability. It is seen that there are differences between the order of attractiveness of the various incentives for personnel in their first year as contrasted with personnel in their sixth year (Table 1-1). Home loan guarantee rises from third for the sixth-year men to first for the first-year men. Educational benefits rises from seventh to second, medical and dental benefits falls from first to third, and the income tax exemption falls from second to fourth.

The absolute magnitude of the net gain tends to increase also for these first-year men, probably associated with the general, more favorable attitude toward the RC. Home loan guarantee could appear more attractive to these younger persons because they are younger, are just getting married, and are thinking about home purchase. Also educational benefits are of greater interest to the younger members as they have greater need for them at this point in time. Increased pay itself does not appear to be very attractive, being lowest among all of the incentives. In the previous survey it ranked fourth in importance.*

* It should be noted that the bonus and the increased pay incentives were not worded the same way in the two surveys—bonus was \$600 for a 6-year enlistment instead of \$500 for a 3-year reenlistment, and the pay incentive required only that the respondent be aware of the pay increase for lower ranking enlisted men; comparison of these two items in the surveys may not be warranted. The question concerning BAQ did not appear in the first survey.

Table 1-23

MEAN NET GAIN^a IN ENLISTMENT PROBABILITIES AS RELATED TO VARIOUS INDUCEMENTS
(Survey of First-Year Personnel)

Item	ARRNG		USAR		All responses	All responses	All ARNG and USAR responses
	12 months or less	More than 12 months	12 months or less	More than 12 months			
D9 - Home loan guarantee	0.31	0.29	0.33	0.27	0.30	0.32	0.31
D5 - Educational benefits of \$500	0.33	0.22	0.32	0.27	0.30	0.31	0.30
D8 - Medical and dental benefits	0.34	0.24	0.29	0.24	0.31	0.28	0.29
D11 - Income tax exemption of \$1250	0.32	0.26	0.27	0.30	0.31	0.28	0.29
D3 - No economic loss during AT	0.26	0.16	0.22	0.18	0.24	0.21	0.22
D7 - Improved retirement benefits	0.28	0.24	0.20	0.13	0.27	0.19	0.22
D10 - Proficiency pay	0.22	0.19	0.24	0.13	0.21	0.21	0.21
D6 - SGLI	0.15	0.12	0.18	0.11	0.14	0.17	0.15
D2 - \$600 bonus for enlistment	0.16	0.03	0.15	0.14	0.13	0.15	0.14
D4 - BAQ	0.15	0.02	0.12	0.08	0.12	0.11	0.11
D1 - Increased pay	0.12	0.05	0.10	0.07	0.10	0.10	0.10
D13 - Economic package	0.45	0.31	0.40	0.37	0.42	0.40	0.40
E16 - Noneconomic package	0.32	0.24	0.36	0.37	0.30	0.36	0.33
E17 - Both packages	0.46	0.35	0.46	0.42	0.43	0.46	0.44

^aProbability of enlistment for Part D or E incentive or incentive package minus item C1, probability of original enlistment with no draft.

Noneconomic Incentives to Enlistment

In Part E of the survey the respondent was asked to choose from among 14 different items listed the three that he thought most important to him—that might have an effect on his attitude toward the RC. A summary of responses for the ARNG and USAR is shown in Table 1-24. The responses are organized in general order of their attractiveness to ARNG and USAR personnel. The numbers show the proportion of respondents choosing that particular item. For example, it is seen that 39 percent of ARNG personnel and 54 percent of USAR unit personnel selected item E5, which dealt with a relaxing of personal appearance and grooming standards. Item E1, domestic action in the community, was generally second in attractiveness, followed by E3, utilization of skills, E6, advancement and promotion opportunity, and E7, concern for family. It will be noted that in items E5 and E7 significant differences between categories are evident; USAR unit personnel are significantly more interested in relaxation of grooming standards, and ARNG personnel are significantly more interested in greater concern for the family by RC units.

The five items of greatest attractiveness are the same five items that were chosen by ARNG and USAR unit personnel in the earlier survey. Only their order has changed.

In referring back to Table 1-23, it is seen that the package of noneconomic inducements is generally as attractive or more attractive than any of the single economic inducements. It is of interest to note that these noneconomic, presumably low-cost incentives, can be just as effective in improving enlistment potential as a more costly economic incentive.

Additional Questions

The estimated amount for a fair bonus, item F1, is slightly less for men in their first year of obligation. In the earlier survey the ARNG and USAR personnel estimated a fair annual bonus somewhere between \$570 and \$590 respectively. In this survey the amounts suggested by the ARNG and USAR respectively were about \$510 and \$560. While the amounts suggested in the first-year survey are less, they still are considerably higher than the amount of bonus about which there is current speculation.

Table 1-24

PROPORTION^a CHOOSING VARIOUS NONECONOMIC INCENTIVES AS BEING IMPORTANT
(Part E - Survey of First-Year Personnel)

Item	Reserve Component	
	ARNG	USAR
E5 - Personal appearance and grooming standards	.42	.59 ^b
E1 - Domestic action in community	.51	.40
E3 - Utilization of skills	.39	.41
E6 - Advancement and promotion	.34	.40
E7 - Concern for family	.39	.24 ^b
E4 - Social activities in unit	.17	.18
E13 - Training and equipment	.18	.14
E2 - Public attitude toward RC	.14	.13
E9 - Morale of unit	.13	.14
E10 - Fewer assemblies	.12	.13
E11 - No MUTA	.04	.11
E8 - Career counseling	.09	.05
E12 - AT with Active Army	.05	.02
E14 - More WAC in RC	.03	.04

^aProportion adjusted to correct for nonresponse (respondents were instructed to select 3 items out of the 14, correction was made to correct for instances when less than 3 were selected).

^bStatistically significant difference between response for ARNG and USAR unit respondents.

Question F2 asked the respondent if he had ever been denied benefits by his employer because of his ARNG or USAR membership or training participation. In the previous survey about 15 percent had stated that they thought they had been denied benefits. In this current survey an average of 19 percent indicated that they had lost something because of their RC affiliation.

Question F3 asked what the employer's leave policy was with respect to RC annual active duty training. A much higher percentage in this survey are self-employed or unemployed—in fact, roughly 50 percent of the respondents. Of the remainder, about 20 percent indicated that the employer did make a satisfactory adjustment so that the reservist suffered no loss of income during his AT. Because of the lack of comparability of the respondents in the two surveys respecting their employment status, comparison of results on this question is not especially meaningful.

Question F4 has been noted previously. It asked, "Had there been no draft and you had not had any military obligation at the time you first entered military service, do you think you would have entered the service?" Results are shown in Table 1-25. In the previous survey from 12 to 15 percent indicated they definitely, or probably, would have entered; in the current survey, 12 percent indicated they definitely would have, or probably would have, entered service. The results are consistent.

Question F5 sought to determine the primary reason for entry into the ARNG or USAR. From 80 to 88 percent of the respondents indicated that they entered either to avoid the draft or to fulfill their obligation at the time of their choice. These results are consistent with the ARNG and USAR unit results from the previous survey.

Question F6 inquires as to whether or not the respondent would encourage his friends to enlist in the RC. The responses to this question are shown in Table 1-26. It is seen that some 42 percent of the ARNG unit personnel probably or definitely would encourage their friends to join, and some 20 percent of the USAR unit personnel would do the same. The results are somewhat more favorable toward the RC than for the sixth-year men.

Table 1-25

PERCENTAGE DISTRIBUTION OF RESPONSES -
 PROBABILITY OF ORIGINAL ENLISTMENT ASSUMING NO DRAFT
 (Question F4 - Survey of First-Year Personnel)

Alternative	Reserve Component	
	ARNG	USAR
Yes, definitely would have	3	2
Yes, probably would have	10	7
No, probably would not have	38	32
No, definitely would not have	33	51
Have no idea what would have done	15	8
Chi-square = 8.06, df - 4; NS		

Table 1-26

PERCENTAGE DISTRIBUTION OF RESPONSES -
 ENCOURAGEMENT OF FRIENDS TO JOIN RC
 (Question F6 - Survey of First-Year Personnel)

Would you encourage friends to join RC?	Reserve Component	
	ARNG	USAR
Definitely would not	11	32
Probably would not	29	25
Not sure	19	23
Probably would	31	12
Definitely would	11	8
Chi-square = 20.95, df - 4; p < 0.01		

To sum up, the principal differences between the first- and sixth-year respondents appear to be associated with age differences. The younger men have greater interest in home loans and educational benefits, things associated with their youthful needs. They have greater apparent satisfaction with their RC duty, which is reflected in satisfaction scale values and expressed probability of reenlistment in the RC. Respondents in both surveys indicate that changes in the RC that would not ostensibly cost anything to implement can be nearly as great inducement to RC service as would economic incentives.

ATTITUDE OF ACTIVE ARMY PERSONNEL TOWARD POTENTIAL INCENTIVES

A survey was administered to servicemen of all ranks, private (E-1) to colonel (O-6), during the December 1971-February 1972 time period at six of the CONUS posts participating in the VOLAR experiment.* Two questions relating to the possibility of Active Army personnel enlisting in the RC were asked of respondents. Question 21 of the survey instrument (see Annex B1) asked "If you are not planning to reenlist or extend in the Active Army, would you be likely to join the Reserve Components (Army National Guard or Army Reserve)." The individual responded to one of the five alternatives ranging from "definitely would not join RC" to "definitely would join RC." The responses to this question are shown in Table 1-27. Only responses of the enlisted men are comparable to the persons surveyed in either of the two surveys reported in this RC study.

The responses of the grades E-1 to E-3 and grades E-4 and E-5 groups are most closely related. It should be noted that from 5 to 21 percent of the grades E-1 to E-3 group (alternatives 4 and 5) or from 8 to 22 percent of the grades E-4 and E-5 group indicated some likelihood of entering a RC unit. Current rates of entry of individuals from active service into the RC have varied widely in response to policy changes; that is, entry into a RC unit was very popular when associated with the early-out provision for release from active service (relief from AD for up to 179 days if one would agree to enlist in a RC unit for a year or longer). The results furnished in Table 1-27 demonstrate a significant

* R. W. Rae, "Evaluation of the Modern Volunteer Army (MVA) Program, Appendix B: Analysis of RAC MVA Survey Responses," RAC Draft, June 1972.

Table 1-27

POTENTIAL OF ACTIVE ARMY PERSONNEL FOR ENLISTMENT IN RC
(Question 21 - VOIAR Survey)

Enlistment alternative	Percentage choosing each alternative, by grade level							
	E-1 to E-3	E-4 to E-5	E-6 to E-9	W-1 to W-4	O-1 to O-3	O-4 to O-6		
1. Definitely would not	36	39	8	-	22	11		
2. Probably would not	15	15	4	9	15	4		
3. Don't know	28	24	15	-	11	4		
4. Probably would	16	14	21	22	17	11		
5. Definitely would	5	8	52	70	36	69		
Mean	2.4	2.4	4.0	4.6	3.3	4.2		
SD	1.32	1.29	1.42	.95	1.49	1.61		

potential for Active Army personnel to join RC units. It is especially important that such personnel be attracted to RC units because of the low costs involved—the individuals are already trained and further training costs for them would be minimal.

Question 22 sought to learn the acceptability of ways to attract more people into the RC: "Which three of the following might do the most to influence people to join the RC (Army National Guard or Army Reserve)?" Twelve different suggestions were then made. The response to this question is shown in Table 1-28. Again attention should focus upon the enlisted ranks, with special attention to the E-3 to E-5 group. It is seen that economic benefits are highest in attractiveness, with educational benefits next in order. Then five different items are grouped fairly closely: better utilization of skills in the RC, provisions for career planning, shorter term of enlistment in the RC, greater concern for the family of RC members, and more training time spent on community problems.

It is of interest to note that the ordering of these particular items is quite different from that for the respondents in the RC surveys, which represent the first- or sixth-year REP. It will be recalled from Tables 1-10 and 1-24 that domestic action in the community, relaxation of grooming standards, better utilization of skills, concern for family, and advancement opportunity stood highest for the REP personnel. For the Active Army personnel, however, economic benefits and educational benefits stand higher than all of these, and training time on community problems and relaxation of grooming standards are low in the order of preferences. These findings suggest that there may be differences in motivations among the Active Army and RC populations that are essentially similar in grade and age level. It is expected that the Active Army population is considerably lower in socioeconomic and educational levels than are the RC personnel surveyed in this study. These results point up the need to consider very seriously the target group when one is developing information and material intended to induce enlistment in the RC; that is, for those personnel in the Active Army, greater concern and emphasis should be given to the economic benefits of RC duty, the associated educational benefits, and better utilization of skills already learned in advancing them in a RC career. For the REP personnel completing

Table 1-28

ATTITUDE OF ACTIVE ARMY PERSONNEL TOWARD JOINING RC
(Question 22 -- VOLAR Survey)

Alternative	Proportion choosing each alternative, by grade level					
	E-1 to E-3	E-4 to E-5	E-6 to E-9	W-1 to W-4	O-1 to O-3	O-4 to O-6
Number of responses	992	1061	446	25	224	53
Economic benefits	.55	.53	.58	.42	.53	.58
Educational benefits	.41	.38	.35	.23	.29	.39
Utilization of skills	.25	.30	.28	.28	.21	.21
Career planning	.29	.26	.36	.55	.41	.50
Shorter enlistment in RC	.27	.26	.06	.09	.07	.06
Concern for family	.26	.26	.43	.42	.39	.21
Training time on community problems	.25	.23	.21	.28	.23	.29
No economic loss during AT	.19	.23	.28	.42	.39	.26
Grooming	.23	.21	.06	.09	.09	-
AT only	.16	.19	.12	.09	.19	.21
Public relations program	.08	.08	.24	.14	.16	.23
More social activities	.05	.06	.06	-	.04	.08

Note: Respondents were instructed to choose the three alternatives that would do most to influence one to join the RC. Proportions have been normalized to correct for instances when respondents selected less than three alternatives. Alternatives are ranked in order of choice by grades E-4 to E-5.

the 6-year obligated tour, service to the community and relaxation of grooming standards have precedence.

B. ANALYSIS OF PROPOSALS

INTRODUCTION

This section discusses each proposal or program selected in Phase I for detailed analysis individually and evaluates each to determine the results that can be expected from implementation of the proposal, the impact, if any, that implementation would have on Active Army procurement and retention, the net costs (one-time and annual) of the proposal, the cost effectiveness of the proposal, requirements for new legislation, and the political and social implications, if any. The proposals are discussed in the following format.

The RC Proposal

The definition includes a statement of the proposal and its wording in the RAC survey, if pertinent.

Survey Results

Survey results gives a brief summary of the RAC Sixth-Year Personnel Survey findings related to this proposal. Detailed analysis will be found in the text and tables of Chap. 1, Sec A.

Survey results are expressed both as estimated reenlistment rates and as net gains or improvement in reenlistment rates if a particular proposal were in effect. The latter is a figure derived by subtracting the mean reenlistment rate without the effect of the proposal from the rate with the proposal, hence the use of the term "improvement in reenlistment" or net gain in reenlistment.

Status in the Active Army

The status in the Active Army deals with the prevailing practice in the area of each proposal as it related to AD personnel.

Impact of the RC Proposal on the Active Army

Some general conditions pertain to the impact of any proposal on the Active Army:

(a) Common to all those proposals that encompass some cost factor is the recognition that, over and above the direct cost of the proposal to the DA, the proposal probably impacts on the Active Army by virtue of reducing the Active Army budget to make necessary funds available for approved RC proposals. Although such reduction is not inevitable, it usually happens.

(b) Quite aside from incentives to improve recruitment and retention in the RC, it is important to recognize that if the One-Army concept is to be more than just a concept, reservists expect that benefits given to the Active Army should be extended to the RC, at least in proportion to the time they spend soldiering. Many reservists consider this a matter of equity rather than of incentive although, of course, the extension of such benefits to the RC becomes an incentive, both for recruitment and retention.

(c) Surveys have indicated that the civilian male population of primary military enlistment age (17 to 26) consists of a spectrum of potential for enlistment in the Army ranging from complete antipathy toward military service to a positive determination to enlist in the Active Army. In between the extremes of this spectrum is a portion in which individuals evidence various degrees of propensity to enlisting in the RC. Service in the RC is unique in that it affords an individual the opportunity to be both soldier and civilian essentially at the same time.

The factors which influence a civilian to join the RC are not only many and diverse but are inconstant. The statement of the Secretary of Defense⁹ in August 1970 regarding his intent to use the ARNG and USAR, and to strengthen them as opposed to the previous policy of depending on larger draft calls, will undoubtedly deter some potential recruits from joining the RC while attracting others.

There is no clear evidence that the group of individuals who have a propensity to serve in the Active Army is a distinctly different group from the one consisting of individuals with a propensity to serve in the RC. However the very nature of the civilian/military dichotomy of RC

service tends to indicate that the RC do not generally tap the same market as does the Active Army. Those who opt for service in the Active Army have decided to make the Army their life's work or have decided to try it pending that decision, or have decided that the Army will be their full-time work at least for the number of years for which they enlisted. Those who join the RC, on the other hand, are dedicated to being civilians with their life's work being in the civilian world. To these people the Army is a part-time job or an avocation. These soldiers are civilians. Notwithstanding the foregoing, it is recognized that given enough of an incentive or impetus the population can be induced to change its preference. Assuming that this spectrum thesis is correct, then increases in first-term enlistments in the RC could be obtained from either those civilians somewhat undecided between civilian life and RC service, or from those undecided between Active Army service and RC service. With respect to determining the impact on the Active Army of implementing incentives for joining the RC, it appears that the concern should be primarily with this latter group. Because of differences in propensity to military service between those inclined toward RC and those inclined toward Active Army service, this group should be small relative to those groups who are undecided between civilian life and RC service, and between civilian life and Active Army service. Thus unless an incentive to join the RC is particularly out of balance with what is offered by the Active Army or unless an incentive forcibly relates one to the other (e.g., reserve obligation clause in Active Army contracts), the effect on the Active Army of most incentives to join the RC would be minimal.

Status in the RC

Status in the RC treats prevailing practice and authority relating to each proposal as it applies to personnel in paid drill units. In some cases there is a difference in coverage between the ARNG units and the USAR units.

Net Cost and Cost Effectiveness

The paragraph on net cost and cost effectiveness states, when available, the cost per enlisted man (mandated strength), the annual cumulative cost, and the cost effectiveness ranking (based on the RAC survey of sixth year personnel) of each proposal. Thirteen different proposals

or combinations of proposals were so ranked. The detailed cost derivation and analysis are found in Task 1, Sec C, Cost Analysis of Incentive Proposals.

Legislation Required

Legislative status of each proposal is discussed. In some cases Congress or DOD has draft legislation ready for action; in other cases appropriations would be required. Many proposals need no additional legislation but may require Army policy or regulation changes. In some instances, present policy needs only increased emphasis. In a few areas legislation may not be required, but the area is so politically sensitive as to warrant Congressional approval before proceeding.

Political and Social Implications

Political and social implications inherent in the implementation are discussed in the final section. The present period is one of sociological change, and analysis in this area reaching into the late 1970's can be only generally predictive.

The following proposals are discussed in the following order:

<u>Proposal</u>	<u>Page</u>
Increased pay	1-76
Reenlistment bonus	1-81
No loss of income during annual training	1-85
Educational benefits	1-88
Servicemen's Group Life Insurance	1-92
Retirement benefits	1-96
Medical and dental benefits	1-100
Home loans	1-108
Proficiency pay	1-110
Federal income tax exemptions	1-113
Community domestic action programs	1-115
Image	1-119
Utilization of skills	1-123
Extra-military activities involving families	1-126
Freedom in personal appearance	1-128

Improved opportunity for advancement	1-131
Accept greater responsibility for families	1-136
Career counseling program	1-140
More effective leadership	1-142
Changes in assembly and annual training policy	1-145
Integration into Active Army units	1-148
Improved Training	1-150
Increased number of WAC in the RC	1-153
Adjustment of benefits and obligations—IRR	1-156
Increased recruiting from Active Army	1-158
Reserve Component information program	1-160
Standby draft for RC	1-162
Reserve Component enlistment options	1-167
Enlistment bonus	1-170
Post exchange and commissary privileges	1-173
Winter annual training	1-177
Reserve service obligation clause	1-179

INCREASED PAY

The RC Proposal

Increase drill and AT pay by 50 percent

In the survey instrument this was stated as, "Suppose your pay for scheduled meetings and annual training were increased by as much as 50 percent. Considering only this item, what would be the likelihood that you would reenlist in the Guard or Reserve?"

Survey Results

The RAC November survey indicated that as a result of the pay raise, net increases in reenlistment of 24 and 20 percent could be predicted for ARNG and USAR unit personnel, respectively. This incentive ranked fourth in attractiveness to personnel in units, but ranked among the lowest in attractiveness to those in the Control Groups and the Stby (understandably so as the latter two receive no pay unless called to AD).

Status in the Active Army

In mid-November 1971 all military personnel received a military compensation raise,¹⁰ although most career personnel received only an increase in their quarters allowances. First-term enlisted personnel averaged a 61.2 percent raise in basic pay, while first-term officers averaged 9.0 percent.¹¹ In January 1972 there was an additional across-the-board 7.2 percent increase in basic pay.¹² Existing law provides that military pay shall be raised an equivalent amount every time Civil Service pay is raised. The 1970 law provides that Civil Service pay will be adjusted each October 1 so that Federal pay will be kept comparable with the pay in private industry.¹³ Under this concept another automatic adjustment for Civil Service pay would be due 1 Oct 72. However, this is further complicated by the president's anti-inflation program and an attempt to hold down the Federal budget.

Impact of the RC Proposal on the Active Army

If the RC receive a pay increase and the Active Army does not, there could well be a serious, adverse impact on the morale of the Active Army. It can be argued that the reservist now draws 1 day's pay for a 4-hour unit training assembly (UTA) and can draw 2 days' pay for multiple unit training assembly-2 (MUTA-2), which in reality is usually completed in one 8-hour day. On the other hand, the reservist does not receive all the Active Army benefits and allowances for his inactive duty training (IDT).

Status in the RC

Provisions for payment of RC personnel are contained in AR 37-125,¹⁴ AR 37-104-2,¹⁵ NGR 58,¹⁶ and NGB Pam 58-1.¹⁷ The basic rates are the same as those most recently authorized by Congress for the Armed Forces.

Net Cost and Cost Effectiveness

The annual net cost of a 50 percent pay raise would be \$430.40 per enlisted man for the ARNG and \$417.73 per enlisted man for the USAR. The incremental cost per year for this incentive would be \$159.9 million to the ARNG and \$93.9 million to the USAR.

The 50 percent pay increase ranks eleventh (of 13) in cost effectiveness for each component

Legislation Required

Legislation is required for any increase in basic pay. Major legislation in this area was enacted on 28 Sep 71 as part of PL 92-129.¹⁰ The provisions of this bill were not effective until November 1971 when the inflation control of the wage-price freeze was lifted. The amounts set forth in this bill as rates of monthly basic pay have been augmented by cost-of-living increases.¹² In the lower enlisted and officer grades, salaries are now felt to be comparable to, and in more equitable competition with, nonmilitary remuneration. Additional legislation in this area is not felt to be needed at this time nor has it been requested by DOD. Analysis is underway to evaluate the attractiveness of the present rates in regard to procurement and retention and it is not likely that further legislation in this area will be requested before such analysis is complete.

Political and Social Implications

Typical average pay for a guardsman attending 48 drill periods and 2 weeks' AT—to include quarters allowance for personnel with dependents—is shown in Table 1-29.

The very large majority of the sampled population were E-4's and E-5's, and of these a high proportion makes \$10,000 or less per year, as shown in Table 1-30.

Table 1-29
 TYPICAL AVERAGE PAY¹⁸
 (Dollars)

Pay grade	Years of service	Daily pay	Monthly pay	Annual pay ^a
E-3	1-2	\$ 11.12	\$ 44.48	\$ 753.06
E-4	3-4	12.91	51.64	874.08
E-5	5-6	14.31	57.24	972.03
E-6	6-8	16.81	67.24	1134.03

^aIncludes basic allowance for quarters.

Table 1-30
 SALARY LEVEL FOR GRADES E-4 AND E-5

Personnel	Percent of sample population	Percent with annual earnings of \$10,000 or less
ARNG unit	85	64
USAR unit	78	51
ATCG	93	79
RCG	93	87

For the majority of the sampled population, typical average pay for annual reserve duty is over 8 percent of annual civilian pay. It would seem that this point should be highlighted in advertising. And with increase in rank to E-6, this ratio of reserve-to-civilian pay increases to over 11 percent. The Gilbert Youth Survey¹⁹ (of civilian youth) conducted in May 1971 listed insufficient pay as one of the main deterrents to joining the RC.

Monetarily it would appear to be more attractive to hold a second job rather than choose reserve duty. This is illustrated by a Special Labor Force Report²⁰ which indicated that those holding second jobs in May 1971 (and virtually unchanged from May 1969, 1970 data) averaged \$30 per week; 25 percent averaged under \$20 per week. However, those holding second jobs represented only 5.1 percent of all employed workers; and in some locales the monetary benefits of reserve service could be more attractive than benefits which might accrue from part-time work.

The wide publicity and the magnitude of the November 1971 pay raise have attracted great interest in the Congress and within OSD. The interest can be summed up by the question "what happened as a result of the pay raise?" The Army should be prepared to answer. Our survey results indicated that as a result of the pay raise, reenlistment rates of 43 and 35 percent could be expected in the ARNG and USAR units, respectively.

Increased basic pay rates make a unit more of an economic asset to the community in which it is located. This is true even though few individuals are involved. An article published in the Flemingsburg, Ky., Times-Democrat and quoted in The Army Reserve Magazine²¹ illustrates this point very well. Second Lieutenant Rick Litton, author of the article, states that a company of only 30 members meeting in Flemingsburg has an annual payroll of \$19,795.73. "This means that the men of Co B have an average of \$660 extra to spend on goods and services, supplemental income that is mostly spent in the Fleming County area." In addition to this, the local USAR unit averages \$783.80 per year for groceries (locally purchased), \$4284 per year for rent and janitorial services, and \$720 per year for laundry service. This means that annual expenditure on goods and services attributed to the local USAR unit for these items alone is

\$25,583.90. The author concludes, "The local Army Reserve center can be considered a small business which is a vital part of the economy and security of Flemingsburg." Congressmen are alert to the impact on the economy of their districts of large, active military installations. They should also be apprised of the impact of the RC units which may be proportionally as great on a small community as the major installation on the state. This is a source of community income which, for the most part, remains unaffected by other changes in the economic climate. In areas which may be subject to fluctuation in unemployment this is of great stabilizing value.

Of possible significance in the decades ahead is the incipient 4-day work week. The 4-day work week has had the effect of increasing the number of persons who hold two different jobs. When viewed as a possible part-time job, any increase in pay rates makes RC service more attractive in competition with other part-time jobs. Reserve Components service possesses an attribute almost unique in the field of part-time jobs. It is one of the very few part-time jobs in which it is possible to advance in salary and grade. Most part-time jobs are static in this respect. For example, a part-time salesman will make the same hourly wage after 6 years as after 1 year, if effects of inflation are discounted. Few part-time jobs offer any opportunity for promotion.

REENLISTMENT BONUS

The RC Proposal

Pay a bonus of up to \$500 for a 3-year reenlistment in a RC unit.

As given in the survey instrument, "Suppose you were to receive a bonus for reenlistment of up to \$500 for a three-year reenlistment in a Guard or Reserve unit." The same question was asked of those persons who were in units as well as those who were in the IRR. The value of \$500 was suggested in Incl 1 to the Selected Analysis study.²² That inclosure suggests a \$500 bonus for a 3-year reenlistment and \$100 for a 1-year reenlistment. The second aspect was not included in the survey statement, however.

Survey Results

Survey responses indicated a net potential reenlistment increment ranging from 10 to 13 percent as a consequence of such a bonus. This proposed incentive ranked eighth in attractiveness for ARNG and USAR unit respondents and lowest among the 10 economic inducements for the Control Group respondents.

In question F1 of the survey of sixth-year personnel, the respondent made an estimate of his concept of a fair annual bonus for the RC. The modal estimates were for a bonus of from \$500 to \$750 for 1 year—which helps account for the low value accorded the \$500 3-year bonus proposed.

Status in the Active Army

The Active Army pays a reenlistment bonus equal to the soldier's monthly basic pay times the number of years for which he reenlists, plus a variable reenlistment bonus (VRB) based on the requirement for certain critical MOSs up to a combined total not to exceed \$10,000.²

Impact of RC Proposal on Active Army

As we have stated, we believe generally that the civilians who have a propensity toward RC service are a different type from those with a propensity toward Active Army service. Moreover, if one were weighing the pros and cons of enlisting in the RC vs the Active Army, it is highly unlikely that he would be looking ahead to future terms of enlistment to compare reenlistment bonuses and that his decision would be based on these. It is thus unlikely that the RC reenlistment bonus proposal would impact at all on the Active Army from this direction.

If a man is already in the Active Army and approaching his ETS, it is conceivable (albeit unlikely) that he will consider reenlistment in the Active Army vs enlistment in the RC. The implications of this comparison are discussed under the proposed RC enlistment bonus. The possibility that the soldier will look ahead to successive tours of duty in the RC and thus be influenced by this relatively small reenlistment bonus is so low as not to warrant serious consideration. This is especially true if the soldier has a critical MOS and qualifies for a VRB in the Active Army.

If a man is a reservist approaching his ETS in the RC, he may consider reenlistment in the RC vs enlistment in the Active Army. Again, this is essentially a question of remaining a civilian or becoming a full-time soldier. It is extremely doubtful that the final decision in such a case will hinge on a \$500 bonus (for a 3-year enlistment). If he has a satisfactory civilian occupation, he will probably remain a civilian. If he likes military life and is seeking employment, he may join the Active Army. Thus the RC proposal will affect primarily those reservists who are undecided between reenlisting as a civilian with part-time military duties and becoming a full-time civilian. The impact on the Active Army is considered to be minimal at most.

Status in the RC

At present there is no reenlistment bonus available to all RC personnel.

Some states pay a reenlistment bonus to members of the ARNG. For example a guardsman in Alaska may receive up to \$2800 as a reenlistment bonus.

Net Cost and Cost Effectiveness

The net cost of the \$500 bonus for reenlistment is \$6.08 per enlisted man for the ARNG and \$5.45 for the USAR. The annual incremental costs are \$2.3 million to the ARNG and \$1.2 million to the USAR.

The cost effectiveness ranking of this incentive is seventh (of 13) for both components.

Legislation Required

Legislation would be required and has been requested in order to initiate a reenlistment bonus for the RC. With the backing of OSD, S 1470³ and HR 6051⁴ were introduced in the first session of the 92d Congress

and referred to the Committee on Armed Services. These are bills "To amend Title 37 US Code to provide an incentive plan for participation in the Ready Reserve." Applicable to all DOD Reserves and the Coast Guard, these bills, under the section Special pay, recommend: "(1) \$1,000 upon reenlistment or extension of his enlistment; (2) \$200 upon completing each year, under that reenlistment or extension of satisfactory participating in the program prescribed for his Reserve assignment, as determined by the Secretary concerned." Available only through 20 years of service as computed under Title 10, USC, Sec 1332,² this special pay is available to an enlisted member of a RC who:

- (1) has completed a total of at least two years of active duty, or a total of at least six years of service, in one or more of the armed services;
- (2) is accepted for enlistment, reenlistment, or extension of enlistment in a Reserve component, in a pay grade above E-2, for a period of at least three years; and
- (3) agrees to remain in the Ready Reserve for a corresponding period and to perform such drills or other duty as may be prescribed.^{3,4}

This legislation has been reported on favorably. The Office of Management and Budget (OMB) advises that, from the standpoint of the Administration program, there is no objection to presentation of this proposal for the consideration of the Committee.

The DOD, while in agreement with the purpose of the bill, questions whether S 1470/HR 6051 will achieve this purpose for the following reasons:²³

- (a) It is considered that an incentive plan should provide special pay in variable rather than fixed amounts.
- (b) Authority should be provided to order a member who has received such special pay to a period of AD for unsatisfactory performance and progress.
- (c) The minimum period of enlistment or reenlistment should be reduced to 1 year, with a graduated pay scale for longer periods.
- (d) Eligibility should be limited to persons who affiliate with units of the Selected Reserve in a drill pay status.
- (e) Provision should be made for collection of refunds from those members who will not or cannot perform satisfactorily for the period of enlistment.

(f) Because of the interaction of enlistments and reenlistments, it is considered desirable to incorporate a nonprior-service (NPS) enlistment bonus within the same proposal as the special pay reenlistment.

The DOD recommends amending S 1470/HR 6051 in regards to reenlistment as follows:

(a) Authorize special pay to enlisted members in the grade of E-3 and above who have served on AD (other than training) for at least 2 years for enlistment or reenlistment in the Selected Reserves.

(b) The amount of special pay would be limited to a total of \$2200 for a 6-year enlistment for a person possessing a critical skill, \$1100 for a person not possessing a critical skill, with lesser amounts for shorter periods.

The maximum total payable to one person under this bill would be \$3300.

Social and Political Implications

This incentive squarely addresses the problem of first-term reenlistment. The actual drawing point of this incentive is yet to be determined but should be tracked by CORC. The actual amount of the bonus has varied as proposed budget levels have varied, and in this way can be considered a political issue.

This type of incentive would be a first for RC personnel, and it has been endorsed by high level study groups (e.g., GEN Mark Clark's panel,²⁴ 1967), by private organizations such as the American Legion, National Guard and Reserve Officers Associations, by OSD, and by the Congress. There will be much Congressional and OSD interest in how this bonus is administered and in the results achieved. The Army should be prepared to measure the impact. Survey results, as noted above, indicated a net potential reenlistment in ARNG/USAR units of 10 to 13 percent.

NO LOSS OF INCOME DURING ANNUAL TRAINING

The RC Proposal

The Army would guarantee (either by legislative compulsion on the employer or otherwise) that the reservist will not suffer any financial loss during his AT solely by virtue of attending that training. Thus if a reservist receives monthly pay from his employer of \$1000 and his basic pay plus allowances for his 2 weeks' AT amounts to \$300, the Army would guarantee the reservist (from some source) an additional \$200 for the period, since \$500 is the amount he would have earned if he had not attended the AT period.

The statement as given in the survey was, "Suppose the Army were to guarantee that you would suffer no loss of income during annual active duty training; if the employer did not make up the difference between your salary and your military pay so that you suffered no loss, the Army would make up the difference." This question is somewhat related to item 7 of Part B (What effect does your Guard or Reserve duty have on your vacation time—do you have to sacrifice leave and vacation time because of your Guard or Reserve obligation?) and item 8, Part B, (Is your employer's attitude toward your Reserve Component obligation satisfying to you—does he understand your situation and take measures to relieve any economic distress you might experience because of it?).

Early results indicate that respondents rate these two items as low in importance to them—item 8 somewhat less important than item 7. It was intentionally left ambiguous as to who might make up the difference in pay. The point being made in the question was that the respondent would suffer no economic loss, and it really should make no difference to him who made up the difference. In the case of a respondent who was self-employed, this might be viewed quite differently, however.

Survey Results

Among RC unit personnel this item ranked among the lowest in attractiveness (with a net reenlistment improvement of from 8 to 13 percent), but ranked from fifth to seventh for Control Group respondents. Similarly, respondents in ARNG or USAR units expressed relatively low dissatisfaction with the employer's attitude and did not place high importance on the matter.

Questions F2 and F3 of the survey included two items related to the RC member's relationship with civilian employers, the same items being part of the DOD 1969 survey of RC personnel. In question F2, about 15 percent of persons in RC units indicated that they had, at some time within the past 6 years, been in some way denied benefits because of their RC affiliation. Responses to question F3 indicate that about 50 percent of those in ARNG and USAR units have employment where they suffer no loss of leave time or income during AT. From 35 to 45 percent indicate they must either take leave without pay or use vacation leave for AT.

Status in the Active Army

Not applicable.

Impact of RC Proposal on Active Army

There is no way that this proposal could impact on the Active Army.

Status in the RC

At present there is no provision for making recompense to RC personnel for loss of income during AT.

Net Cost and Cost Effectiveness

The annual net cost per enlisted man to insure against loss of income during AT is \$28.32 for the ARNG and \$36.76 for the USAR. The annual incremental cost to the ARNG would be \$10.5 million and \$8.3 million to the USAR.

The cost effectiveness ranking of this incentive is eighth (of 13) for both components.

Legislation Required

Legislation would be required to insure RC personnel against loss of income during AT. This might take the form of a legal requirement placed upon employers. There would remain the problem of reimbursement for the self-employed. The second form legislation might take is government reimbursement for loss of, or difference in, total income. This would require inclusion in DOD appropriation legislation as well as legislation directing correction of income inequities during AT.

No legislation has been drafted or is it requested by DOD at this time.

Political and Social Implications

Our survey results indicate that at present 50 percent of the employers either allow 2 weeks' leave with pay, or pay the difference between military and civilian pay for the 2 weeks. Fifteen percent of the employers do not allow special leave at all, and the employee must use regular vacation leave. Thirty-five percent of the employers allow 2 weeks' leave without pay. The Gilbert Youth Survey indicated that "civilian job conflict" with the RC requirement for 6-month ADT was a major deterrent to joining a RC unit.¹⁹

It would seem that any proposal which reimburses employers for RC duty performed by their employees opens up a wide variety of political and practical problems, apart from cost aspects. Fifty percent of the employers already stand the costs either wholly or in part. A presentation made to the House Armed Service Committee by OASD (M&RA),²⁵ in July 1971, indicated an intent to seek the cooperation of employers in encouraging ARNG and USAR participation. Hopefully this encouragement would take the form of at least relaxing leave policies, to include some degree of reimbursement. A vigorous public relations campaign, at the highest governmental level, is indicated. In this regard the message of the UK Minister of Defence²⁶ in March 1971 to "leading employers throughout the country" is noteworthy (see Phase I Report).²⁷

EDUCATIONAL BENEFITS

The RC Proposal

The Army provides to reservists educational benefits equivalent to \$500 for 3 years of additional RC service.

The survey question asked was, "Suppose you were to receive education benefits for Reserve Component service equivalent to \$500 for three years of Reserve Component service, benefits such as cancellation of student loans for service in the domestic interests of the nation, the ability to take Armed Forces Institute courses, monetary allowances to offset education expenses, and so on." The Selected Analysis²² concludes that an educational benefit is not a cost effective incentive. There still remains the possibility, however, that education as a benefit has a positive psychological connotation somewhat separated from the dollar amount. The item in the survey was intended to get at that benefit by equating the dollar value with the reenlistment bonus.

Survey Results

This incentive usually ranked seventh and eighth in attractiveness across RC categories, having a net improvement in reenlistment potential of from 13 to 15 percent. It is of interest to note that, while the dollar value of the reenlistment bonus and the educational benefit is the same, the educational benefit is perceived as being more attractive by all RC categories sampled, other than the ARNG respondents, who perceived the two as equivalent.

Status in the Active Army

The Active Army has in effect a Tuition Assistance Program supported by appropriated funds which may be used to pay 75 percent of tuition costs, or fees in lieu of tuition costs, for Army personnel attending off-duty classes conducted by accredited civilian educational institutions. Enlisted personnel whose ETS will occur prior to course completion must sign a statement of intent to reenlist, and agree to refund the amount of tuition assistance provided by the Government if reenlistment is not accomplished for reasons within the control of the individual concerned. There are several other educational programs available to members of the Active Army, some of which are funded and controlled by DOD [the General Educational Development Program and US Armed Forces

Institute (USAFI)] and others funded and controlled by the VA [Public Law (PL) 89-358²⁸ and the Predischarge Education Program].

Impact of the RC Proposal on the Active Army

If a civilian is undecided between enlistment in the Active Army and enlistment in a RC (we have already stated that this is an unlikely dilemma), it is improbable that his decision will be based primarily on educational benefits. However, if such benefits are important to him, he would certainly be impelled toward enlistment in the Active Army in spite of the proposed RC educational benefits. The proposed RC educational benefits do not compare favorably with those of the Active Army in value or in diversification.

If a civilian is undecided between enlisting in the Active Army or remaining a civilian, the Active Army educational benefits could exert considerable influence on his decision but, of course, the existence or nonexistence of RC benefits in this area would be immaterial. Conversely, if a civilian is undecided between enlisting in a RC or remaining a full-time civilian, the RC educational benefits may influence his decision but, in any event, there could be no impact on the Active Army.

Status in the RC

At present RC personnel receive no educational benefits for RC service such as those provided under the GI Bill nor are they eligible for the Tuition Assistance Program. In rare cases civilian vocational and trade schools or other recognized civilian educational institutions may be used as an extension of USAR schools. In this case, personnel so trained might acquire transferable educational credit as a result of RC service.

Net Cost and Cost Effectiveness

A \$500 educational benefit offered for a 3-year reenlistment would have a cost saving of \$12.43 per enlisted man in the ARNG and \$13.29 per enlisted man in the USAR. The incremental saving would be \$4.6 million for the ARNG and \$3.0 million for the USAR. The cost effectiveness ranking for this incentive is sixth (of 13) in the ARNG and fourth (of 13) in the USAR.

Legislation Required

In order to provide educational benefits, either in-service or veteran-related such as are available under the GI Bill, legislation would be required. Such legislation has not been prepared at this time

but is under consideration. Frequent mention has been made of educational benefits to be granted in the same amount and in substitution for enlistment or reenlistment bonuses.

At least one state, Alaska, has state educational benefits of \$7200 for ARNG members.

Political and Social Implications

This incentive, as an enlistment incentive, was also quite popular among the civilian youths polled in the Gilbert Youth Survey,¹⁹ where it ranked second as an inducement to join the RC.

An idea of the relative value of educational benefits as an incentive is seen in Table 1-31. As might be expected, those in high school and college value this incentive more than do those who have completed college.

Table 1-32 gives a percentage breakout of educational level by RC.

Table 1-31
PROBABILITY OF REENLISTMENT, BY EDUCATIONAL LEVEL

Educational level	ARNG	USAR	IRR
High school graduate	0.36	0.32	0.23
Some college	0.32	0.32	0.27
College graduate	0.22	0.18	0.20

Table 1-32
EDUCATIONAL LEVEL OF ARNG AND USAR UNITS AND IRR PERSONNEL^a

Educational level	ARNG	USAR	IRR
Less than high school	2.1	1.3	12.8
High school graduate	35.1	27.6	43.4
Some college	37.3	34.5	31.0
College graduate	20.0	23.3	8.0
Post graduate	5.5	13.2	3.3

^a Percents may not total to 100 because of rounding.

Over one-third of the USAR unit personnel have completed college or are at postgraduate level; this is the case with one-fourth of the ARNG members. Almost 13 percent of the IRR contingent have not completed high school; 56 percent are high school graduates or below, as compared to 37 percent in the ARNG, and 29 percent in the USAR units. The difference in educational level between IRR personnel inductees principally and the other RC members is striking.

There are no active proposals before the Congress at this time relative to tuition assistance. It is a matter which has received attention in several major studies dealing with the RC, and apparently the Canadian Armed Forces have used this incentive widely, with success (Phase I Report)²⁷.

SERVICEMEN'S GROUP LIFE INSURANCE

The RC Proposal

Allow members of the RC to carry up to \$15,000 worth of full-time SGLI at a cost to the reservist of from \$3 to \$4 per month. Currently members may elect to carry none or up to \$15,000 in increments of \$5000 at a cost of \$.60 per \$5000, but coverage is only while actually performing reserve service or proceeding to or returning from such service on a portal-to-portal basis.

The question asked in the survey read, "Suppose you were allowed, as a member of the Reserve Components, to carry \$15,000 of Servicemen's Group Life Insurance (SGLI) at a nominal cost to you of, say, \$3 to \$4 a month." While not stated in the question, it is implicit that this would be a year-around coverage and would not apply only to the period of AT.

Survey Results

The net effect of this item ranks lowest in attractiveness for ARNG and USAR unit personnel (about 8 percent improvement) and generally seventh or eighth for Control Group personnel.

Status in the Active Army

Members of the Active Army are automatically considered participants in full-time SGLI of \$15,000 at a monthly cost of \$3 unless the member specifies in writing that he elects to have a lesser amount (\$5000 or \$10,000) or none.

Impact of the RC Proposal on the Active Army

If a civilian is undecided between enlistment in the Active Army and enlistment in a RC (the rare case), the SGLI probably would not be a decisive influence either way. Moreover, if both the Active Army and the RC are offering essentially the same incentive, the decision even more probably will be based on other factors.

If a civilian is undecided between enlisting in the Active Army or remaining a civilian, the RC proposal would be of no consequence.

If a civilian is undecided between enlisting in a RC or remaining a full-time civilian, the RC proposal may exert some influence on the decision, but, in any event, would not impact on the Active Army.

Status in the RC

Public Law 91-291²⁹ amends current law pertaining to SGLI. Army Regulation 608-2³⁰ is pending revision to incorporate all the changes. Reservist coverages is the phrase used to designate all reservists on ADT of 30 days or less or on IDT, which may be weekday or weekend drills. Inactive duty training must be scheduled in advance by competent authority to begin at a specified time and place. Servicemen's Group Life Insurance is in effect only during that part of the day during which IDT is performed. It is also in effect during IDT and ADT while a member is proceeding directly to or from the place where such duty is performed.

Effective 25 Jun 70, SGLI coverage was increased to \$15,000. Premium for annual coverage of reservists is \$1.80 per year per man for \$15,000, \$1.20 for \$10,000, and \$.60 for \$5000. Cost of SGLI will be deducted from the first pay check issued for RC duty in the FY.

Net Cost and Cost Effectiveness

There is a net saving if low-cost SGLI is offered to RC personnel at \$13.34 for ARNG and \$13.24 for USAR. The incremental cost savings will be \$5.0 million for ARNG and \$3.0 million for USAR.

The cost effectiveness ranking as a reenlistment incentive is fifth (of 13) for both ARNG and USAR.

Legislation Required

Extension of full-time SGLI³¹ coverage to RC personnel who remain associated with the Uniformed Services reserves has been included in DOD 92-52 draft legislation. The extension of coverage is subject to the following conditions:

- (a) The cost of SGLI should be paid by the participating reservist.
- (b) Regulations covering participation should be as uniform as practicable between the Active Army and RC.
- (c) Reserve retirees should be allowed to continue SGLI coverage until age 60, or election into the survivor annuity plan, whichever occurs first.

Several bills were introduced in this session (2nd) of the 92d Congress to amend Title 38, USC, to "encourage persons to join and remain in the Reserves and National Guard by providing full-time coverage under

SGLI for such members and certain members of the Retired Reserve up to age 60." HR 14742, strongly supported by all Services and OSD, was reported out of the House Armed Services Committee, and passed on May 15 by the House.

According to the VA, full-time SGLI can be provided to RC unit members at a cost of \$3.00 per month for \$15,000 coverage, with no supplemental funding required. Reserve Component members would be carried in a separate insurance group, which would be self-sustaining. The only category of RC personnel who might have to pay higher rates is the retired member.

At present, the VA administers the program of low-cost life insurance to AD members of the Uniformed Services, cadets, midshipmen, and members of the Reserve Officers Training Corps (ROTC) while on field training and cruises, and to certain members of the RC only during periods of ADT and IDT under Title 38, USC, Sec 765-770.²

Members of the ARNG are already the beneficiaries of many low-cost or cost-free plans available through private carriers. Eleven states now provide \$15,000 free life insurance while men are on duty for a state-wide mission. Six more states are considering providing this coverage.

Most State National Guard Associations include life insurance (in varying amounts) and monthly magazines as part of the package covered by their yearly dues (also in varying amounts by state association). Typical of these programs is the one in Alabama which offers guardsmen \$10,000 life insurance (with \$15,000 available) for \$44 per year through a private firm. A Maryland firm offers Maryland National Guard technicians \$10,000 life insurance for \$48 per year. In 1971 the policy holders received a \$10 refund on these policies for a total cost of \$38.³³

Political and Social Implications

Full-time coverage of reservists by SGLI has been included in DOD 92-52 draft legislation. It is considered "as an important element in the recruitment and retention incentive package that they [reserve forces] believe will enable them to achieve their personnel goals in a no-draft environment." The issue of retirement benefits, and associated life insurance coverage, is politically very visible. The Interagency Committee which conducted the retirement study consisted of the Assistant

Secretary of Defense for Manpower and Reserve Affairs [ASA(M&RA)] (Chairman), the Administrator of Veterans Affairs, the Chairman of the US Civil Service Commission, and the Assistant Director, Office of Management and Budget. Twenty-four associations representing active duty and reserve personnel, retired personnel, and Uniformed Services' dependents and survivors were contacted, and 22 statements were submitted.

Whether the insurance lobby will make an issue of the extension of low-cost insurance coverage to reservists remains to be seen. A similar proposal to extend coverage to cadets at the Service academies has been held up because of this lobby.

A point to be advertised, perhaps, is that the government, as an employer, is probably unique in extending this coverage to its "part-time" workers. In general, part-time employees receive few of the benefits paid to full-time members of an organization.

RETIREMENT BENEFITS

The RC Proposal

Improve retirement benefits by:

(a) providing for an actuarially reduced annuity as early as age 50, or

(b) a lump sum payment related to the member's terminal pay and years of constructed service, and

(c) permitting a member to protect his equity in retirement by allowing him to participate in SGLI until age 60 or until he elects to participate in the survivor benefit plan, and

(d) allowing him to elect to participate in the survivor benefit plan proposed for the Active Army with commencement of retired pay.

The survey question read, "Suppose you had improved retirement benefits for yourself (for example, retirement with pay at age 50), and benefits for your dependents if you were to die before retirement age." This item includes two separate things—earlier retirement with an implication that early retirement is only an example of the improved benefits, and secondly, survivor benefits for a reservist who died before reaching retirement age. The improved retirement benefits include those things covered under Incl 16 and 18 of the Selected Analysis.²² Inclosure 16 includes earlier entitlement to retirement on an actuarial basis, and would be of no significant additional cost to the Government; Inclosure 18 studies the offering of additional retirement points to "sweeten" the retirement picture. Inclosure 8 of the Selected Analysis deals with survivor benefits, but beginning only after the RC member has or would have reached retirement age. The second part of the proposal, concerning benefits to dependents if the member were to die before retirement age, does not appear to be truly a part of the Selected Analysis consideration.

Survey Results

Improved retirement benefits ranked fifth in attractiveness for RC unit personnel and third for Control Group personnel as a reenlistment inducement, with a net increase in reenlistment of about 20 percent for all categories.

Status in the Active Army

The Interagency Committee to study Uniformed Services retirement and survivor benefits and to develop comprehensive legislative proposals was established in March 1971. The Interagency Committee made its report³¹ to the President in July 1971. The President approved an Interagency Committee recommendation for one-time recomputation of retired pay to be coupled with legislation revising the nondisability retirement system.³⁴ It was proposed that the legislation be advanced in the early spring of 1972.

The Retired Serviceman's Family Protection Plan (RSFPP) currently in existence permits an active member of the Uniformed Services to designate a percentage of his future retired pay as a survivorship annuity. Depending upon the option he elects, the annuity is paid to his widow and/or to his eligible children when he dies in retirement. The retired pay of members who elect an RSFPP annuity is reduced under an actuarial equivalent method that results in contributions which, if invested in a fund at a stated rate of interest, would meet all of the survivorship payments anticipated under the plan.³¹ The law specifically provides that the plan must be completely self-financed, and consequently the election rules are strict. Over the years (originally 1953 and revised to its present form in 1961), only about 15 percent of service retirees have elected to participate.³¹ The Interagency Committee has proposed a system similar to that in use by the Civil Service and integrated with the Social Security system. The committee has proposed modifications to the retirement system with certain benefits accruing to those members separating between 10 and 19 years of service; increased multipliers for 25 through 30 years of service and introduction of multipliers for 31 through 35 years of service; use of a high 3 years' average basic pay; and integration with the Social Security retirement benefits.

Impact of the RC Proposal on the Active Army

In the unlikely case of a civilian undecided between enlistment in a RC and enlistment in the Active Army, the more liberal and comprehensive benefits of the Active Army—both present and proposed—would give a decided edge to the Active Army, if, in fact, these benefits were of major consideration. However, the improved RC benefits proposed would tend to reduce the Active Army edge vis-à-vis the situation as it exists today.

In any event, it is unlikely that the decision would be based on the comparative retirement benefits. If the individual opts for enlistment in a RC, it almost certainly indicates he has a full-time civilian job which may have its own retirement program. In this case, the reserve retirement program becomes supplemental and, in conjunction with the benefits offered by the civilian job, may well exceed the Active Army retirement benefits. As stated earlier, the point is considered to be somewhat academic since the decision to be made will more probably be between entering the reserves and remaining a full-time civilian, or between entering the Active Army and remaining a full-time civilian. While retirement benefits may play a part in these decisions, it is quite clear that implementation of the RC proposal has minimal (if any) impact on the Active Army.

Status in the RC

Personnel in ARNG units are eligible to receive retirement benefits at age 60. The methods and procedures for computing creditable years of service for retired pay under Title 10, USC, Chap. 67,² are elaborated in NGR 23.³⁵

Members of the USAR become eligible for retirement through service in the RC, the Active Army, any of the components of the Armed Forces, or a combination of these. In order for an individual to be authorized retired pay he must be 60 years old, have completed 20 years of qualifying service which includes the accrual of a minimum of 50 retirement point credits each year, and have served the last 7 years of qualifying service as a member of a RC. When retired pay is authorized at age 60, retired RC personnel receive the same hospitalization, PX, and commissary privileges as retired Active Army personnel.

The authorization for the awarding of retirement points to members of the USAR is found under Title 10, USC, Secs 1331-1337.² The regulations regarding retirement points are found in AR 140-185³⁶ and the requirements governing retirement benefits are covered in AR 135-180.³⁷

Net Costs and Cost Effectiveness

A net saving of \$36.70 per enlisted man for ARNG and \$29.79 per enlisted man for USAR would result from offering improved retirement benefits. The incremental saving would be \$13.6 million for the ARNG and \$7.0 million for the USAR.

This incentive ranks second (of 13) in cost effectiveness for both ARNG and USAR.

Legislation Required

Draft legislation, DOD 92-52, correcting inequities in retirement and survivor plans has been prepared and was being staffed in March 1972. This legislation contains the recommendations, previously listed, for the RC found in the "Report to the President on the Study of Uniformed Services Retirement and Survivor Benefits by the Interagency Committee."³¹ The present Administration is on record as favoring enactment of this legislation in the spring of 1972.

Congress is already cognizant of the problems in this area. In the 1st Session of the 92d Congress, two bills, HR-11844³⁸ and HR 11865,³⁹ were introduced to amend Title 10, USC, Sec 1331(a)² so as to permit members of the USAR and ARNG units to receive retired pay at age 55 for nonregular service.

Political and Social Implications

The Interagency Committee Report³¹ is currently being reviewed for comment by the Services. It is comprehensive in its coverage, and provides, among other things, for:

- (a) An actuarially reduced annuity as early as age 50.
- (b) An unreduced annuity as early as age 55, for a reservist with 25 or more creditable years of service.
- (c) An option of membership in the survivor benefit program.
- (d) Insurance coverage discussed previously.
- (e) Reserve annuities based on pay rates in effect at retirement, with CPI adjustment accounting for cost of living increase.

This last proposal will probably create much discussion among reserve personnel. Currently reservists' retired pay is based on rates in effect at the time payments are begun—but not before the member reaches age 60. Active force retirees receive retired pay based on pay rates in effect at retirement with CPI adjustments to reflect cost of living increases. The disparity in treatment between active and reserve forces is glaring.

A feature which is most attractive, however, is the annuity beginning at age 50. Previously a reservist had to be age 60 before receiving benefits. In the private sector, the typical retirement age is 65. An earlier retirement age makes for a younger and more vigorous force, over all.

MEDICAL AND DENTAL BENEFITS

The RC Proposal

That members of the RC and their dependents be afforded medical and dental care. This item reads, "Suppose you were to have medical and dental benefits for yourself and your dependents while you were in the Guard or Reserve."

Survey Results

This item is the most attractive to respondents in all RC categories, promising a net reenlistment rate of 31 and 27 percent in the ARNG and USAR units, and about 24 percent in other RC categories. It is closely related to the importance accorded economic benefits and family in Part B of the survey.

Status in the Active Army

Active duty personnel receive complete medical and dental care from military doctors in Uniformed Services facilities. Their dependents receive military health care subject to the availability of space and facilities and the capabilities of the professional staff. Domiciliary or custodial care and prosthetic devices are excluded from this care. Emergency dental care may be provided, but routine dental care is authorized only at specifically designated installations.

Dependents requiring inpatient care and who reside with the AD member (sponsor) are entitled to use civilian inpatient facilities only when military facilities are not available. If not residing with the sponsor, dependents may be authorized civilian care regardless of availability of military facilities, in which case the Government pays all expenses except for hospitalization charge of \$1.75 per day or \$25, whichever total is greater.

Dependents have the prerogative of electing outpatient care from a civilian source under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The individual pays the first \$50 per year per person, or the first \$100 per year per family, and 20 percent of the remainder. The Government pays the rest (except for well-baby care, dental care, prosthetic devices, and domiciliary or custodial care).⁶

Impact of the RC Proposal on the Active Army

As of 30 Sep 71 there were 14,875 military physicians and 6244

military dentists (plus an unknown number of civilian doctors and dentists) in the DOD.⁴⁰ Total AD personnel for the DOD at the end of FY71 was 2.699 millions.⁵ Assuming a ratio of 1.2 dependents per AD member,⁴¹ the total AD strength plus their dependents is 5.94 millions. There are estimated to be at least an additional 2.7 million retired, dependents of retired, dependents of deceased members, and civilian employees overseas and their dependents. Thus the DOD now furnishes medical and dental support to a total population of at least 8.64 millions. This results in doctor and dentist ratios of 1.72 per 1000 and 0.72 per 1000, respectively. National civilian averages for 1969 were 1.63 and 0.57 per 1000, respectively.⁴²

The military dentist ratio of 0.72 per 1000 is deceptive since at least a third of the population is ineligible for dental care (dependents of AD and of retired military personnel). Additionally many retired personnel do not avail themselves of the services, probably because they are retired in areas where military dental facilities are not readily accessible. These factors, however, are somewhat counteracted by the need for a higher ratio in the military due to its higher standards compounded by the low standard of dental care received by recruits before they entered the service.⁴¹

Although the number of civilian doctors and dentists employed in DOD was not determined, it is expected they will be considerably less than the more than 8 percent of the military doctors and dentists carried as transients, patients, students, and instructors at various Staff and Command and other schools. Thus the ratios are considered as optimistic estimates, and the true situation is probably slightly worse than shown. In any event, the DA has stated that insufficient civilian and military staffing and less than acceptable health care facilities have resulted in cases of long waiting lines and unresponsive, impersonal medical treatment.⁴³

If the proposed extension of medical and dental service to RC personnel and their dependents is limited only to those in a paid status and their dependents, we add another 2.29 million to the population eligible for service* (see Table 1-33).

* Assuming the same factor of 1.2 dependents per paid reservist.

Table 1-33
RESERVE COMPONENTS IN PAID STATUS,
END OF FY71
(Thousands)

RC Category	Number
ARNG	400
USAR	308
US Naval Reserve	143
US Marine Corps Reserve	50
Air Force National Guard	89
US Air Force Reserve	51
Total	1041

With the total population of 10.93 millions, the doctor and dentist ratios drop to 1.36 per 1000 and 0.57 per 1000, respectively. The doctor ratio would be completely unacceptable considering that at 1.63 per 1000 there is known to be a critical shortage of doctors in the civilian community. It is expected that the dentist ratio would also be unacceptable for essentially the same reasons.

The Surgeon General, US Army, reports that for FY69 only approximately 593,000 of an estimated 6.2 million eligible and potential users applied for benefits under CHAMPUS.⁴⁴ Extension of CHAMPUS benefits to reservists and their dependents should be considered as the only reasonable way to extend medical and dental care to this population. Since CHAMPUS does not now provide for most dental care even for the currently eligible population, this would have to be added so as to accommodate the new population.

Another factor which works in favor of CHAMPUS or similar systems is that of equity. If service at military facilities is offered, only those reservists who are reasonably close to such facilities will benefit therefrom. If a system similar to CHAMPUS is offered, it would be available to all reservists.

If the RC proposal is implemented so as to lower the standard of medical care for members of the Active Army and their dependents, this can be expected to result in a severe adverse impact on enlistments and reenlistments. If implementation of the RC proposal results in reduced care for retired personnel, this can be expected to result in a lesser adverse impact on the Active Army, but still an adverse reaction because these people are potential retirees.

Status in the RC

In general, RC personnel are provided medical care for accidents and illnesses incurred during, or as a direct result of, all RC activities as prescribed by AR 40-3.⁴⁵ Dependents of RC personnel are authorized medical care at government expense when the sponsor is serving on AD for 31 days or more. Medical care is also provided for disease or injury incurred during ADT and while traveling to and from ADT. Medical care for emergencies occurring during IDT should be readily available. Immunization requirements are the same as those for the Active Army (AR 40-562).⁴⁶

Net Cost and Cost Effectiveness

The annual net cost of increasing medical and dental benefits would be \$156.29 per enlisted man in the ARNG and \$163.32 per enlisted man in the USAR. The incremental cost of this incentive would be \$58.0 million (ARNG) and \$36.7 million (USAR).

The cost effectiveness ranking was ninth (of 13) for both ARNG and USAR.

Legislation Required

Several pieces of legislation which may affect extension of medical and dental benefits to RC personnel and/or their families are presently under consideration by Congress. A bill, S 806,⁴⁷ was introduced during the 1st Session of the 92d Congress to amend Titles 10² and 32² of the USC "to authorize additional medical and dental care and other related benefits for reservists and members of the National Guard under certain conditions and other purposes." The first amendment provides care for dependents of RC personnel on AD for more than 30 days on a space- , facilities- , and capabilities-available basis. Also included is medical and dental care for survivors who are entitled to death benefits.

Coverage for RC personnel would be extended under this bill to provide the same hospital benefits as are provided to regular component personnel of corresponding grade and length of service subject to the following conditions:

- (a) he is disabled from disease while on a period of AD exceeding 30 days,
- (b) he is disabled from injury while on AD for any period of time,
- (c) he is disabled in the line of duty from injury while on IDT,
- (d) he is voluntarily participating in aerial flight and disabled in line of duty from injury.

Any Congressional action to extend medical care along the lines of Medicare and Medicaid to the general US population would affect the need to extend care to RC personnel, their dependents and survivors. This legislation would also diminish the drawing power of this incentive.

Critical US doctor shortage restricts the extension of all health care, military or civilian. The Committee on Armed Services has reported favorably (HR Report 92-524)⁴⁸ On HR 2,⁴⁹ presented in the 1st Session, 92d Congress, to establish a Uniformed Services University of the Health Sciences. Secretary Laird, DOD, has expressed himself in a letter dated 20 Jul 71 to Congressman F. Edward Hebert, Chairman of this committee, as favoring enactment of this legislation. In this letter he points out that "...It would also add significantly to the total number of members of the health professions available in the National Medical Manpower pool." It is in this aspect that the greatest potential benefit may accrue to RC personnel and dependents, and may make possible the extension of health care coverage to them.

The DOD has drafted substitute legislation which will amend somewhat S806. The benefits of this bill are displayed in Table 1-34 which also sets forth those benefits currently available. Table 1-35, for use with Table 1-34, indicates the provisions of the current laws or bills authorizing the benefit.

Political and Social Implications

The Interagency Committee³¹ recommends no change in the present system, which allows these benefits only after age 60. In this regard the Committee refers to the reservist as being primarily a civilian with

Table 1-34

COMPARATIVE ANALYSIS OF MEDICAL CARE AND RELATED BENEFITS

There is set out below in summary form, a table, reflecting the various benefits and coverage now provided Reservists under current law as well as the increased coverage that would be provided under the provisions of the bill as amended.

Comparative Analysis of Medical Care and Related Benefits Proposed for Reservists Under OOD Substitute for S.806[92] as Contrasted With Those Presently Available Under Current Law.

	MEDICAL CARE MEMBER	PAY AND ALLOWANCES	TRAVEL AND TRANSPORTATION ALLOWANCES	PHYSICAL DISABILITY RETIREMENT	DEATH GRATUITY	BURIAL	SURVIVING DEPENDENTS MEDICARE ^{a/}
To and from, before, between, and after inactive duty training:							
Injury:							
Current law	No	No	No	No	Yes (5)	No	No
Bill	Yes (1)	Yes (2)	Yes (3)	Yes (4)	Yes (6)	Yes (7)	Yes (8)
Disease:							
Current law	No	No	No	No	No	No	No
Bill	No	No	No	No	No	No	No
During inactive duty training:							
Injury:							
Current law	Yes (9)	Yes (11)	No	Yes (14)	Yes (16)	Yes (18)	No
Bill	Yes (10)	Yes (12)	Yes (13)	Yes (15)	Yes (17)	Yes (19)	Yes (20)
Disease							
Current law	Yes ^{b/} (20a)	No	No	No	Yes (24)	Yes (26)	No
Bill	Yes (21)	Yes ^{c/} (22)	Yes (23)	No	Yes (25)	Yes (27)	Yes (28)
: Active duty, 30 days or less, including travel to and from:							
Injury:							
Current law	Yes (29)	Yes (31)	Yes (33)	Yes (35)	Yes (37)	Yes (39)	No
Bill	Yes (30)	Yes (32)	Yes (34)	Yes (36)	Yes (38)	Yes (40)	Yes (41)
Disease:							
Current law	Yes (42)	Yes ^{c/} (44)	Yes (46)	No	Yes (48)	Yes (50)	No
Bill	Yes (43)	Yes ^{c/} (45)	Yes (47)	No	Yes (49)	Yes (51)	Yes (52)
Active duty over 30 days, including travel to and from:							
Injury:							
Current law	Yes (53)	Yes (55)	Yes (57)	Yes (59)	Yes (61)	Yes (63)	Yes (65)
Bill	Yes (54)	Yes (56)	Yes (58)	Yes (60)	Yes (62)	Yes (64)	Yes (66)
Disease:							
Current law	Yes (67)	Yes (69)	Yes (71)	Yes (73)	Yes (75)	Yes (77)	Yes (79)
Bill	Yes (68)	Yes (70)	Yes (72)	Yes (74)	Yes (76)	Yes (78)	Yes (80)

^{a/} Currently provided dependents of retired members including those retired for physical disability injury on inactive duty, and active duty of 30 days or less.

^{b/} Authorized for Naval and Marine Corps Reserve only.

^{c/} Continuation of pay and allowances, not in excess of 6 months. All other cases, pay and allowances where authorized is at rate for members of Regular Army, Navy, Air Force, or Marine Corps of corresponding grade and length of service.

Legend: "(1)", for example, indicates the provision of current law, or the bill, authorizing the benefit.

Table 1-35

Table of Authorities

(1) 10 U.S.C. 1074a(a) (1), (d).	(41) 10 U.S.C. 1078(a) (3).
(2) 10 U.S.C. 1074a(a) (1), (d).	(42) 10 U.S.C. 1074(a), 3722(a) (1), 6148(d), 8722(a) (1); 32 U.S.C. 319(a) (1).
(3) 10 U.S.C. 1074a(a) (1), (d).	(43) 10 U.S.C. 1074a(b) (1).
(4) 10 U.S.C. 1204(a) (2), (b), 1206(a) (4), (b).	(44) 10 U.S.C. 3722(b) (2), 6148(d), 8722(b) (2); 32 U.S.C. 319(b) (2).
(5) 10 U.S.C. 1475(a) (3), 1476, 32 U.S.C. 321.	(45) 10 U.S.C. 1074a(b) (2), (3).
(6) No effect on current law.	(46) 10 U.S.C. 3722(a) (1), 6148(d), 8722(a) (1); 32 U.S.C. 319(b) (4).
(7) 10 U.S.C. 1481(a) (2) (C), 3(C).	(47) 10 U.S.C. 1074a(c).
(8) 10 U.S.C. 1076(a) (3).	(48) 10 U.S.C. 1475(a) (1); 32 U.S.C. 321(a) (1).
(9) 10 U.S.C. 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(b) (1).	(49) No effect on current law.
(10) 10 U.S.C. 1074a(a) (1).	(50) 10 U.S.C. 1481(a) (2) (A), (3) (A).
(11) 10 U.S.C. 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(b) (2).	(51) No effect on current law.
(12) 10 U.S.C. 1074a(a) (1).	(52) 10 U.S.C. 1076(a) (3).
(13) 10 U.S.C. 1074a(a) (1).	(53) 10 U.S.C. 1074(a), 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(a) (2).
(14) 10 U.S.C. 1204(2).	(54) 10 U.S.C. 1074a(a) (1).
(15) 10 U.S.C. 1204(a) (2).	(55) 10 U.S.C. 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(b) (2).
(16) 10 U.S.C. 1475(a) (2); 32 U.S.C. 321(a) (1).	(56) 10 U.S.C. 1074a(a) (1).
(17) No effect on current law.	(57) 10 U.S.C. 3721(2), 6148(a), 8721(2); 32 U.S.C. 318.
(18) 10 U.S.C. 1481(a) (2) (C), (3) (C).	(58) 10 U.S.C. 1074a(a) (1).
(19) 10 U.S.C. 1481(a) (2) (C), (3) (C).	(59) 10 U.S.C. 1202, 1203.
(20) 10 U.S.C. 1076(a) (3).	(60) No effect on current law.
(20a) 10 U.S.C. 6148(d) (Naval and Marine Corps Reserve, only).	(61) 10 U.S.C. 1475(a) (1); 32 U.S.C. 321(a) (1).
(21) 10 U.S.C. 1074a(b) (1).	(62) No effect on current law.
(22) 10 U.S.C. 1074a(b) (2).	(63) 10 U.S.C. 1481(a) (2) (A), (3) (A).
(23) 10 U.S.C. 1074a(c).	(64) No effect on current law.
(24) 10 U.S.C. 1475(a) (2); 32 U.S.C. 321(a) (1).	(65) 10 U.S.C. 1076(a).
(25) No effect on current law.	(66) 10 U.S.C. 1076(a) (1).
(26) 10 U.S.C. 1481(a) (2) (C), (3) (C).	(67) 10 U.S.C. 1074(a), 3721(1), 6148(a), 8721(1); 32 U.S.C. 319(a) (1).
(27) 10 U.S.C. 1481(a) (2) (C), (3) (C).	(68) 10 U.S.C. 1074a(a) (2).
(28) 10 U.S.C. 1076(a) (3).	(69) 10 U.S.C. 3721(1), 6148(b), 8721(1); 32 U.S.C. 319(b) (2).
(29) 10 U.S.C. 1074(a), 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(a) (1).	(70) 10 U.S.C. 1074a(a) (2).
(30) 10 U.S.C. 1074a(a) (1).	(71) 10 U.S.C. 3721(1), 6148(d), 8721(1); 32 U.S.C. 318.
(31) 10 U.S.C. 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(b) (2).	(72) 10 U.S.C. 1074a(a) (2).
(32) 10 U.S.C. 1074a(b) (2), (3).	(73) 10 U.S.C. 1202, 1203.
(33) 10 U.S.C. 3721(2), 6148(a), 8721(2); 32 U.S.C. 319(b) (4).	(74) No effect on current law.
(34) 10 U.S.C. 1074a(c).	(75) 10 U.S.C. 1475(a) (1), 32 U.S.C. 321(a) (1).
(35) 10 U.S.C. 1204(2).	(76) No effect on current law.
(36) 10 U.S.C. 1204(a) (2).	(77) 10 U.S.C. 1481(a) (2) (A), (3) (A).
(37) 10 U.S.C. 1475(a) (1); 32 U.S.C. 321(a) (1).	(78) No effect on current law.
(38) No effect on current law.	(79) 10 U.S.C. 1076(a).
(39) 10 U.S.C. 1481(a) (2) (A), (3) (A).	(80) 10 U.S.C. 1076(a) (3).
(40) No effect on current law.	

second employment in the Uniformed Services. The Committee also stresses the infeasibility of adding further loads to the already overextended capabilities of Service medical and dental facilities. The National Guard Association has a more modest proposal of extending certain medical, dental, and death benefits to guardsmen and reservists while in an ADT status.

HOME LOANS

The RC Proposal

Allow members of the RC to obtain home loans guaranteed by the FHA or VA because of being members in the ARNG or USAR.

Survey Results

Guaranteed home loan ranks third in attractiveness to ARNG and USAR unit personnel and fourth in attractiveness to those in Control Groups, with net incremental reenlistment effects of about 25 and 18 percent, respectively. While these high values attest to the attractiveness of the proposal, they also bring into question how well the Control Group personnel recognize and are aware of the benefits (this being one) that they already have.

Status in the Active Army

The VA guarantees, insures, or makes direct loans to veterans and AD members of the Active Armed Services. The money can be used to buy, build, or improve a home or farm. The VA sets maximum interest rates which are favorable, and makes possible long-term repayment plans with little or no down payment. Veterans with service after 1 Jan 65 must have at least 181 days of AD to qualify unless separation or discharge is for service-connected disability in which case any amount of service is enough to qualify. Active duty personnel can qualify with 181 days of AD after 31 Jan 55.

The FHA guarantees mortgage loans for construction, purchase, or improvement of homes. Veterans get special mortgage terms. Veterans who have served 90 or more days on AD are eligible to apply for FHA loans. Active duty personnel must have served on AD for more than 2 years.

Impact of the RC Proposal on the Active Army

Some few personnel will probably feel the benefits gap between AD personnel and reservists is closing too much, but it is expected that the overall impact will be negligible. However, if the increased costs attributable to including members of the RC in the program appear to jeopardize these benefits for Active Army members and former members, strong resentment can be expected.

Status in the RC

There is no guaranteed home loan program now available to RC personnel that is a benefit deriving from their RC service.

Net Cost and Cost Effectiveness

The net saving effected by a guaranteed home loan is \$13.37 per enlisted man (ARNG) and \$11.37 per enlisted man (USAR). The incremental saving would be \$5.0 million to the ARNG and \$2.6 million to the USAR.

The cost effectiveness ranking is fourth (of 13) for the ARNG and sixth (of 13) for the USAR.

Legislation Required

Legislation would be required to extend these privileges to members of the RC. The legislation would have to originate with the VA or FHA. It is not under consideration by either of these agencies at this time. However, it is still an active issue in the DOD which would like to make this incentive available to the RC. If enacted, it would be of greatest benefit to men who had never served on AD (potential NPS enlistees). Men who enlist from active service or who have been called up as ARNG or USAR unit members to AD for the requisite time period are already qualified for loans under the GI Bill.

Political and Social Implications

Draft legislation regarding FHA in-service loans has been withdrawn by OSD at this time, without prejudice. After the initial submission it was felt that perhaps a better way of handling these loans would be through VA procedures. This was a popular proposal with the survey group, as noted above.

There has been a great increase in VA home loan activity within the past year. The steady lowering of interest rates from 8.5 percent down to 7 percent provided a great impetus. During FY71 there were 36 percent more guaranteed and insured loans than in FY70. At present a veteran, or an AD member, must have 181 days of AD to qualify for VA guaranteed home loans. Some equivalent type of criterion would have to be worked out for the RC member to be qualified.

PROFICIENCY PAY

The RC Proposal

Extend proficiency pay to the RC on the same basis as it is paid to the Active Army. The item reads, "Suppose you were to receive proficiency pay for an MOS or skills that were scarce or in short supply, or in which you demonstrated uncommon expertise because of the degree of your skill." This item is considered in Incl 9 of Selected Analysis,²² but only for combat arms, specifically MOSs 11 and 13. The question as stated does not limit proficiency pay to combat arms only. The Selected Analysis discussion on this item suggests inequities if limited only to combat arms inasmuch as it would favor the ARNG over the USAR since there is a much higher proportion of combat arms personnel in ARNG units. Another inequity is that the more technical specialties found in USAR units require greater training and may actually be in shorter supply.

Survey Results

The net projected improvement in reenlistment rates associated with this incentive is 15 percent, ranking sixth in attractiveness among all RC categories. Proper utilization of skills, included as a noneconomic incentive in Part E of the survey, ranked third in importance for unit members. It appears evident that respondents attach high value to the proper assessment of their skills and performance of them.

Status in the Active Army

There are currently authorized in the Active Army three types of proficiency pay:

(a) Shortage Specialty (Proficiency Pay). A monthly amount of pay in addition to any pay and allowances to which he is otherwise entitled that may be awarded to an eligible enlisted member in a designated military specialty.⁵⁰

(b) Special Duty Assignment (Proficiency Pay). A monthly amount of pay in addition to any pay and allowances to which he is otherwise entitled that may be awarded to an eligible enlisted member in a designated special duty assignment.⁵⁰

(c) Superior Performance (Proficiency Pay). A monthly amount of pay in addition to any pay and allowances to which he is otherwise entitled that may be awarded to an eligible enlisted member who has been

determined to be a superior performer. The DA may designate up to 10 percent of their eligible support personnel and up to 20 percent of their eligible combat arms personnel for receipt of this pay.⁵⁰ The authorized monthly payment is \$30.

Shortage Specialty (Proficiency Pay) awards are computed using prescribed factors for estimating improved first-term reenlistment rates to be attained from award of various levels of the Shortage Specialty (Proficiency Pay). The authorized range of these awards is as follows:

Level	Range
P-1	\$30, \$50
P-2	\$75
P-3	\$100, \$150

The Special Duty Assignment (Proficiency Pay) awards are authorized at the P-1 level, with P-2 award authorized only where the actual effectiveness, based on experience of the lower awards, has been evaluated and approved by ASD (M&RA).⁵¹

Impact of the RC Proposal on the Active Army

There is an implicit assumption here that essentially the same criteria that are applicable to the Active Army will be applicable to the RC (e.g., the man must be working in the MOS, it must be a scarce MOS, he must pass the appropriate tests, etc.).

It is very probable that the same skills which are scarce in the Active Army are also scarce in the RC. Assuming that proficiency pay in the RC would be paid at one-sixth of the Active Army rate, i.e., a range of from \$5 to \$25 per month, and assuming again the unlikely case of a civilian who is undecided between enlistment in the RC and enlistment in the Active Army, it is highly unlikely that this range of payments would influence him into the RC. In the most likely case of the civilian who is undecided between enlistment in a RC and remaining a full-time civilian, the additional pay in recognition of a scarce skill or the potential additional pay for superior performance may prove to be inducements since these amounts represent a sizable percentage increase in his potential "extra" income. In any event, the impact on the Active

Army of implementation of the RC proposal could be expected to be minimal.

Status in the RC

No proficiency pay is presently authorized for RC personnel.

Net Cost and Cost Effectiveness

There is a net saving for payment of MOS proficiency pay—\$15.02 per enlisted man for the ARNG and \$14.82 per enlisted man for the USAR. The incremental saving would be \$5.6 million (ARNG) and \$3.3 million (USAR).

The cost effectiveness ranking is third (of 13) for both components.

Legislation Required

Legislation would be needed to provide authority for payment of proficiency pay to members of the RC. The OSD does not presently support such legislation. However, HR 6049⁵² was introduced in the 1st Session of the 92d Congress to provide such authority for payment to RC enlisted personnel. This bill would entitle a person designated as specially proficient in a military skill of the Uniformed Service to an increase in compensation equal to one-thirtieth of the monthly proficiency pay authorized for an enlisted member of a corresponding grade in the active Service.

Political and Social Implications

The recently completed ASD (M&RA) study⁵³ reviewed the field of enlistment, reenlistment, and variable reenlistment bonuses and proficiency pay and concluded that shortage specialty pay was not cost effective. Although the study pertained specifically to the active forces it would also apply to reserve forces. The future of superior performance pay and special duty assignment pay was left in doubt, since no recommendations were made concerning them.

FEDERAL INCOME TAX EXEMPTIONS

The RC Proposal

Extend to each member of the RC a Federal income tax exemption of \$1250 per year while he is actively serving in the RC.

The item reads, "Suppose you were allowed a Federal income tax exemption of \$1250 while you were in Guard or Reserve service." How the figure \$1250 was arrived at is unclear, but it is one that has been used in CORC surveys to test attitudes toward this kind of incentive. It may be a value related to the average compensation of a ARNG or USAR unit member, and it may be that what was really intended was Federal income tax exemption for ARNG or USAR pay.

Survey Results

This incentive ranks generally second in attractiveness across all RC categories, having a net reenlistment effect of about 28 percent for those personnel in pay units. There is room for misinterpretation by the respondent of this survey item; some may have interpreted it as meaning a deduction off the top of one's tax, rather than a deductible item on which tax is paid in proportion to one's net taxable income.

Status in the Active Army

There is no Federal tax exemption for Active Army service (other than quarters and subsistence allowances which are nontaxable for both Active Army and RC).

Impact of the RC Proposal on the Active Army

Although implementation of the RC proposal would have no direct effect on recruitment or retention in the Active Army, it can be expected to have very strong repercussions on the morale of the Active Army. The argument can and probably would be made that the action would be discriminatory against those in full-time Federal service and in favor of those in only part-time Federal service (generally one-sixth of the time). In the long run the deleterious effect on Active Army morale could adversely affect retention rates and would work against the One-Army concept unless the Active Army also received an appropriate tax exemption.

Status in the RC

There is no Federal tax exemption allowed for RC service.

Net Cost and Cost Effectiveness

There would be a cost of \$191.63 per enlisted man in the ARNG and of \$195.42 per enlisted man in the USAR if a tax exemption of \$1250 were made on income taxable by the Federal government. The incremental costs would be \$71.2 million (ARNG) and \$43.9 million (USAR). It has not been determined how this cost would be borne.

This item ranks tenth (of 13) in cost effectiveness for both components.

Legislation Required

Legislation would be required to grant any Federal income tax exemption to RC personnel. None has been drafted or requested at this time. A number of the states have passed legislation which provides a state income tax exemption to ARNG personnel.

Political and Social Implications

The tax exemption proposal is not being actively considered by the Army or by OSD at this time. Tax exemption proposals are quite visible, politically, and are certain to draw Congressional interest, particularly in a peacetime situation. Under combat conditions a combat area tax exemption has been -- and is now -- allowed; but this exemption does not extend to personnel outside of the combat area. And if citizen-soldiers were to get tax exemptions, then we could well expect groups devoted full-time to the public safety -- e.g., police force and fire department members -- to opt for such exemptions.

COMMUNITY DOMESTIC ACTION PROGRAMS

The RC Proposal

Increase the use of RC in local domestic action programs to help correct conditions of poverty, poor health, and ecological conditions, etc.

The first item in Part E of the survey instrument reads, "Suppose that Guard and Reserve personnel were used much more in local community domestic action programs to help correct conditions of poverty, poor health, bad ecological conditions, and so on." This is a practice already being promoted to some extent by CORC to improve local attitudes toward the ARNG and USAR. It presumes that those units that engage in such activity are up to standard with respect to their military training requirements. The youth of today feel very strongly that military units should be used more in this kind of activity. Problems do arise, however. There is a case reported in a previous study that a RC unit, attempting to rewire an ancient building for community use, was prohibited from doing so by the electrical union.

Survey Results

This proposal was nominated as being important more often than any other of the noneconomic incentives, by nearly half of all respondents, across all RC categories; it also was suggested frequently in write-in responses.

Status in the Active Army

The domestic action program of the Active Army includes projects such as:

- (a) Tours of Army facilities and installations.
- (b) Overnight encampments hosted by the Army but sponsored and paid for by other public and private agencies.
- (c) Involvement in community projects such as environmental improvement and athletic events.
- (d) Lending equipment to other Federal agencies in support of youth activities.
- (c) Construction projects performed by Army units but financed by other public and private agencies.⁶

Many units and installations have provided volunteer manpower and skilled labor as well as privately raised funds to support almost every kind of community project imaginable.

Impact of the RC Proposal on the Active Army

If there is any impact at all, it will probably be a favorable reflection on the Army as a whole which results from the public knowledge that soldiers (whether they be reservists or Active Army) are contributing to the welfare of the community in a very direct sense.

Status in the RC

As the many instances in service and public media will attest, this is a program which is a very popular part of RC and is growing. A recent instance which received prominence in the national news media was use of ARNG personnel for rescue work in the disastrous flood following a broken dam in West Virginia in February 1972.

Net Cost and Cost Effectiveness

It is assumed that additional cost would be minimal for community domestic action programs.

Legislation Required

Legislation would not be required to enable the RC to enlarge their participation in community domestic action programs. In a few cases special advice may be necessary to avoid conflict with local ordinances and labor unions. However, the ecological issue is at present very well publicized. Several bills were introduced in the 1st Session of the 92d Congress "urging units and individual members of the armed services to engage in civic works." (Typical of these bills is HR 11912⁵⁴ which was referred to the Committee on Armed Services. It notes that in view of the expected reversion of the Armed Forces to peacetime status, the Armed Forces should be encouraged and provided the opportunity to engage in civic works. The bill calls for Congressional direction to the Joint Chiefs of Staff to implement a comprehensive program under which individual members, appropriate units, and organizations of the Armed Forces may devote time to civic works, both at home and abroad. The further recommendation is made that each military department institute service-wide competitions with awards and recognition for distinguished service.)

Political and Social Implications

The RAC survey results placed this first -- of 15 -- among both ARNG and USAR unit personnel. The attractiveness of this program is not difficult to understand. It involves the citizen-soldier in his community's well-being. It directly relates military task to civilian need. Yet of all of the services, only the Air National Guard would appear to recognize involvement in community projects as a part of their mission, based on the hearings before the House of Representatives in March 1971.⁶ These activities are newsworthy, and are reported on in such journals as Army, Army Times, and National Guardsman. These programs obviously build good community relations.

Major General W. P. Wilson, then Chief of the National Guard Bureau, described the domestic action program in these terms, in the hearings referred to above.

DOMESTIC ACTION PROGRAM

...Air National Guard units are encouraged to make maximum use of facilities in support of the Defense Department Domestic Action Program, and to utilize talent within our units where Guardsmen's civilian occupations and roles in community affairs give them advantages in carrying out effective programs.

The hometown makeup of our units and the capabilities and community-oriented relationships of Guardsmen foster an environment of positive response to community actions projects. Guardsmen are social workers, mechanics, clerks, bankers, coaches, students, and business and professional leaders in their communities. They are vitally interested in the welfare of their communities. We exert every effort in urging all Guardsmen to become involved in community and civic programs in an effort to help build a better America. This is just another way -- and an important one -- in which the Air National Guard has proven the value of the citizen-airman concept as a valuable and necessary part of the military force within the structure of our governmental processes.⁶

The attitude of the UK toward its Reserve Forces, as summed up in the 1971 "Defence White Paper,"⁵⁵ is of interest.

The significance of the Reserve Forces extends far beyond their essential military role. They, and the Cadet Forces, are among the most important of the links between the Services and the civil community. From the Services' point of view this brings advantages in terms of recruiting. But that is only part of the benefit: anything that helps to root the Armed Forces more firmly in the wider community, which they exist to serve, is of mutual value.⁵⁵

The RAC survey indicates that the RC domestic action program deserves emphasis from the top echelons down. The payoff could be considerable. Some constraints are, however, recognized as, for example, undertaking projects which would normally be done by private business, and the possible adverse impact on military preparedness.

The use of community domestic action programs to assist the needy and minority groups, as appropriate, and to accomplish public service missions can be a valuable social welfare instrument. The current national emphasis on domestic, as opposed to international, issues makes community involvement a pertinent, visible, and important activity.

IMAGE

The RC Proposal

Create a more favorable public attitude toward the RC through improved public relations and advertising. The item in the survey reads, "Suppose a more favorable public attitude toward the Guard and Reserve arose (perhaps through good public relations, advertising and recruiting) so that you felt greater pride in being part of the Reserve Components." It is evident from question B4—satisfaction with the way the ARNG or USAR is regarded in the community—that members of the RC do not feel that the community regards them with high esteem. Present Army public relations policy does not deal in great volume with the RC. The One-Army concept (to include the RC) is not really fostered in current public relations, and recruiting for the RC still is done mostly at the unit level, by unit personnel, without professional recruiting help.

Survey Results

Item E2 ranks twelfth in importance for unit personnel and tenth for those in Control Groups. The item is related to item B4, which ranks below the midpoint in satisfaction received from community acceptance of RC activities. However, item E2 is ranked lowest in importance in contrast with the other eight.

Status in the Active Army

That the Active Army has an image problem is well known, and the problem is attributed in great part to an unpopular war.⁶ Assistant Secretary of Defense (M&RA) Roger T. Kelley has related the image of the Armed Forces to the morale factor and has stated that morale

"... is the element without which we have no hope of accomplishing an all-volunteer force. Within available resources, we are trying to reach two particular audiences. One is the news media. The other is the education community, particularly on college and university campuses. Within the context of the all-volunteer force, I have taken whatever time I can find to sit down privately with news and editorial staffs of key metropolitan newspapers and described the totality of what we are trying to do and expose myself to their questions, in the hope that we may receive, by reason of these efforts, a little fairer treatment, a little more objectivity in the handling of military news, and a little better appreciation of how critical this morale factor is as a means of achieving the all-volunteer force. This is a little like filling the ocean with a teacup. You have to work at it a piece at a time, and it is a slow, arduous process.

"...On the university and college campuses, [we] have pleaded with college and university administrators to give us no more than the chance to tell the military side of the story, and to expose ourselves to faculty members, to administrators, to student groups, so they can hear the story from us. Lately we are beginning to get some college groups coming into the Pentagon. You of course know there are those who label any such attempts by us as military propaganda. This is legitimate merchandising of the military package as far as we are concerned, and it is essential to getting this job done."⁶

Since at least some of the unfavorable image of the Army is generally attributable to the war in Vietnam, it can be expected that as that war winds down, these unfavorable aspects will diminish. Additionally, the image factor is related to the success of the community domestic action program, and as activity increases in that area, favorable influences on the image of the Army can be expected.

Despite the foregoing, the FY71 DOD Appropriations Act specified dollar limitations for public affairs programs which were approximately 20.6 percent below the FY70 costs for these programs. The Army has planned a further reduction of 18.3 percent in FY72.⁶

Impact of the RC Proposal on the Active Army

Image is an area in which the One-Army concept truly comes into being. Actions of the Active Army reflect on the RC, and actions of the RC reflect on the Active Army. To many civilians a soldier is a soldier and they are not even aware of the distinction between the RC and the Active Army, although they are becoming increasingly more knowledgeable as larger numbers complete their AD service. Any favorable activity of the RC will have at least in part a favorable reflection on the Active Army.

Status in the RC

Unit commanders are responsible for releasing information that will ensure an effective and favorable image of their units. The CONARC Pam 135-4⁵⁶ states, "Imaginative public information, community relations and command information programs are vital. Every facet of the unit mission, including its training and morale, can be improved if the community understands the purpose and the value of the unit." General policies on public information and community relations are contained in AR 360-5⁵⁷ and AR 360-61.⁵⁸

Net Cost and Cost Effectiveness

An approved appropriation of \$4.7 million has been funded for recruiting and advertising for the ARNG and USAR in FY73.

Legislation Required

Most action which could be deliberately taken to improve the RC image does not require legislation. The exception might be appropriation of funds to be spent for advertising, public relations, and information. This is held to be vital to the success of the Modern Volunteer Army. Project Volunteer's proposed budget for FY73 includes \$11.4 million (OMA-P5) to intensify all aspects of RC advertising and \$1.7 million (OMARNG) to update literature (brochures and pamphlets), outdoor advertising, newspaper ads, and other media. For this purpose, \$3.2 million was included in the ARNG base budget and \$2.4 million in the USAR base budget.

Political and Social Implications

An important aspect of the image problem is the advertising campaign that is carried out. Both the Reserve Officers Association and the National Guard Association touch on this in testimony regarding extension of the draft before the House Committee on Armed Services, March 1971.⁵⁹

Speaking for the Reserve Officer Association, COL J. T. Carlton mentioned the need for a "program supported by the Congress to enhance dignity and improve the image of those who don our military uniforms, full time or part time."⁵⁹

Speaking for the National Guard Association, COL J. B. Deerin brought up the issue of paid radio and television advertising when he referred to the Association's concern

...with a situation where the National Guard would be seeking public service time on radio and television, mainly local stations, and space in newspapers, when the active establishment will be paying for time and space. Public service advertising has been the backbone of the recruiting campaign in the States.⁵⁹

He referred to the "fear of being overwhelmed by the Active Army recruiting campaign." He also addressed the problem of image from the point of view of the current and future youth group:

As we get into a zero draft environment in a period of history when attitudes of young people towards military service (sic) is changed, and as I cited before, the distractions, or rather the activities that take young people out of their communities and reduce participation in community activities -- the kind of desire or interest in military and Reserve programs we have known in the past passes out of the picture.⁵⁹

UTILIZATION OF SKILLS

The RC Proposal

Improve the utilization of individual skills in the RC.

The item in the survey reads, "Suppose there were better utilization of your individual skills in the Guard or Reserve." The question implies better MOS designation and assignment procedures. It is evident from returns that a lot of RC personnel feel their skills are being wasted either through bad assignment or through lack of opportunity to use their skills.

Survey Results

Item E3 in the survey was ranked third in attractiveness by unit personnel and fifth by Control Group respondents. The item is related to item B9 which deals with the commonality of skills in the RC and civilian life; item B9 is rated very low in satisfaction derived from this aspect of RC service, but also is rated low in relation to the other items in terms of importance.

Status in the Active Army

Whenever possible the Active Army takes advantage of a man's civilian acquired skills, thereby saving training costs and generally increasing motivation and performance of the man concerned. In the case of enlistees, the civilian-acquired skills enlistment program has been expanded to some 30 occupational specialties in which enlistees can receive a directed specialty and promotion to grades E-4 and E-5 immediately after completion of basic training. A pilot program permits certain individuals to take civilian-acquired-skill tests to evaluate their performance capabilities in advanced MOSs prior to enlistment. Those who receive required scores may be enlisted at grade E-4 or higher and assigned the appropriate MOS. Inductees are interviewed and classified at the reception station where their educational level, special qualifications, civilian-acquired skills, and personal desires are determined. The qualifications of the inductee are matched against DA requirements and occupational specialties awarded as closely as possible to the qualifications but in accordance with requirements. There is also a pilot program for inductees to be examined at the reception station for evaluation of certain civilian-acquired skills as with enlistees. During the first half of FY71 over 15,000 inductees were assigned MOS, based on these evaluations.⁶⁰

The winding down of the war in Vietnam, with its consequent troop reduction and early release program, has resulted in considerable MOS turbulence in the Active Army. The DA Office of Personnel Operations dispatched a moratorium message to the field prohibiting reclassification of enlisted personnel in grades E-1 to E-6 from current primary MOS to another primary MOS and certain other reclassification actions.⁶¹

Impact of the RC Proposal on the Active Army

Improvement in utilization of skills might lead to fewer complaints and thus a better self-image in the RC which, in turn, could improve the image and respect of the whole Army.

Status in the RC

Theoretically the RC follows the same policy on utilization of skills as the Active Army. The Civilian-Acquired Skills Program discussed under Status in the Active Army is also an ARNG/USAR program. Detailed implementing instructions were published early in 1972. In practice this has not been followed extensively because of the practice of recruiting to fill specific vacancies. Draft pressure has motivated men to accept duty in MOSs which require vastly different skills than those they possess to escape active duty in the Armed Forces. In an all-volunteer environment utilization of skills will probably improve.

Net Cost and Cost Effectiveness

There should be no additional cost to the Government for utilizing existing skills.

Legislation Required

Legislation is not required to enable the RC to make fuller utilization of the skills of their personnel.

Social and Political Implications

This incentive ranked high with both ARNG and USAR unit members. Although about average satisfaction was expressed with assigned duties, little satisfaction was experienced with the opportunity to use civilian-acquired skills in the military job.

There are obviously limits to which the man/job match can be maximized when consideration is given to the local, decentralized nature of recruiting for RC units. The flexibility which can be provided by centralized assignment and management systems used by active forces does not apply. Given these local constraints, however, the job utilization

aspects of the personnel program must be a matter of command interest.

In a broader sense, the proper use and development of civilian skills while performing RC duty can have a beneficial effect on civilian job performance, to the extent that jobs can be performed more quickly and efficiently. The on-the-job training aspects of military duty can be significant. The possibility of training in skills useful in civilian life ranked high among the civilian youths in the Gilbert Youth Survey as an inducement to join the RC.

EXTRA-MILITARY ACTIVITIES INVOLVING FAMILIES

The RC Proposal

Increase the social, athletic, and recreational activities developed around the RC so that families of members may find more enjoyment in the member's RC duty.

The question reads, "Suppose there were more social, athletic, and recreational activities developed around the Guard and Reserve so that your whole family found more enjoyment in your Reserve Component duty." It was the intent of the question to emphasize two things: activities in the ARNG and USAR outside of regular assemblies and activities that would allow the family of the RC member to become a part of the member's unit—in a sense, to make the ARNG or USAR unit something like a club. (Apparently it now is regarded somewhat that way in some of the units, but is regarded rather as a club for males only—where they get away from the family!)

Survey Results

Item E⁴ ranked low in importance in Part E of the survey. However personal associations in the RC units were the most satisfying aspects of such duty. One may judge that friendships and personal relationships are satisfying, but there is no desire to carry them to the point of social obligations and recreational obligations in the RC unit.

Status in the Active Army

Within the Active Army the situation varies widely by station, unit, civilian community, and the desires of the members and families. Those families that live on the post understandably find it easier to participate in unit and post activities than those living off post, although many that live off post participate more than those on post. This is for the most part a personal decision; however, whether the post is an isolated one or not, it usually represents the soldiers' special community which results in mixed blessings—especially in overseas areas. In these areas this special community (whether housing or just social life) leads to alienation of the local nationals.

Impact of the RC Proposal on the Active Army

If a wife or family has a strong preference for civilian life and its freedom from group social participation, greater emphasis on extra

military activities in the RC will not be an influencing factor. Impact of this proposal on Active Army procurement and retention is predicted to be minimal.

Status in the RC

There is no policy governing family extra-military activity. Some units have active social programs which are the result of interest and organization by the commanding officers. The ARNG has more programs of this type than the USAR.

Net Cost and Cost Effectiveness

It is assumed cost would probably be minimal.

Legislation Required

Legislation is not required to establish social, athletic, or recreational activities for RC personnel and their families. If this program were to be emphasized to the extent that facilities were built, professional recreation specialists hired, or transportation provided, an inclusion in the RC appropriation for this purpose might be made to cover the cost of such a program.

Political and Social Implications

This particular incentive did not rank very high with ARNG and USAR unit members. Over 80 percent of these members were married, and they indicated very low satisfaction with respect to the impact of reserve duty on their family life—it interfered too much with their family life; they also indicated that family considerations were very important. On the other hand they indicated much satisfaction with the friendships and personal associations made in their units.

More than 98 percent of the ARNG and USAR unit personnel were Caucasians. An effort is being made to increase minority group membership. As this membership does in fact increase, we should expect to find a relaxing of the social barriers which already exist to various degrees in various parts of the country. The Army must be alert to this issue, not only as regards individual members but also as regards their families. The RC can exert an organized influence for social change, and this should be a broad objective of the program. The treatment of minority groups within the RC has obvious political implications which must be recognized and accommodated.

FREEDOM IN PERSONAL APPEARANCE

The RC Proposal

Provide greater freedom of choice with respect to grooming and personal appearance.

The item reads, "Suppose you had greater personal freedom of choice in the Guard or Reserve with respect to grooming and personal appearance." The RC member that meets with a unit is in an anomalous position in that he is a civilian but must look and act like a soldier during assemblies. Commanding officers of units vary a good deal in their policies respecting grooming and personal appearance. They have good grounds for suggesting that a man in a soldier uniform, even though it be one night a week or one weekend a month, should look like a soldier and can point to an adverse public attitude developed toward soldiers that do not look like soldiers. Yet the youthful member wants to be a part of his own peer group, and, if long hair and beards may be a part of the appearance of that peer group, he may be frustrated.

Survey Results

Item E5 stands second in attractiveness for unit members among the 15 noneconomic incentives; it was noted frequently in write-in responses. It ranked between sixth and seventh for those in Control Groups, but, since a Control Group member does not normally attend regular assemblies, less of a problem is presented to him.

Status in the Active Army

This proposal is addressed primarily toward the policy governing haircuts, moustaches, and beards. On this point, it is interesting to note that LTG Kerwin, Deputy Chief of Staff for Personnel, testified before Congress, "I might say it is one of the most emotional subjects I have become involved in as Deputy Chief of Staff for Personnel."⁶ This is perhaps well illustrated by the very fact that the subject was even considered important enough to come up in hearings before the Congress. The issue pertains to limits on length of hair and sideburns, whether sideburns should be allowed to flare, and with the wearing of moustaches and beards.

The current policy of the Active Army is that hair on top of the head will be neatly groomed. The length and bulk of the hair will not

be excessive or present a ragged, unkempt or extreme appearance. Hair will present a tapered appearance and, when combed, it will not fall over the ears or eyebrows or touch the collar except for the closely cut hair at the back of the neck. Published pictures illustrate acceptable hair, sideburns, and moustache styles. Sideburns are not permitted below the lowest part of the exterior ear opening. A soldier may wear a moustache if it is neatly trimmed and tidy and does not extend below a line parallel with the bottom of the lower lip. Beards and goatees are not permitted.⁶² Needless to say, the discussion pertains to male members of the Army. Although the Women's Army Corps (WAC) has some problem with length of hair, it does not appear to be nearly so great or emotional as the male problem. It is also interesting to note that all of the Armed Services are not in agreement on what the policy should be.

Impact of the RC Proposal on the Active Army

Implementation of the RC proposal could not reasonably be expected to influence one way or another recruitment or retention in the Active Army. However, implementation of the proposal in the RC, if more liberal and lenient than the policy for the Active Army, could result in an adverse impact on both morale and image of the Active Army. Morale could be affected in two ways: one, "they have it, and we don't"; and two, they are adversely affecting our image since civilians cannot tell that he is a member of a RC. If we are One-Army, they should also be required to look like soldiers when in uniform." Since it does not seem likely that the Active Army will adopt, say shoulder-length hair in the near future, this rather extreme practice, if accepted by the RC, would create mixed reaction among civilian observers. Undoubtedly some would approve-- others would prefer to see men in uniform look like the soldiers of the rather immediate past. Which group is in the majority cannot be determined at this time.

Status in the RC

The regulations governing personal appearance which apply to the Active Army also apply to RC unit personnel.

Net Cost and Cost Effectiveness

This item would represent no cost to the Government.

Legislation Required

Legislation is not required to give RC personnel greater freedom in personal appearance. It is now governed by Army policy which may be changed without legislative recourse.

Political and Social Implications

The age groupings for the various components are shown in Table 1-36 below.

Table 1-36

AGE GROUPS
(Percent)

Years of age	Unit members		Control Groups
	ARNG	USAR	
24-25	47.7	37.1	58.0
26-27	22.3	25.1	16.0
28-29	16.5	25.1	12.3

The vast majority of the surveyed group are in their late twenties, with the Control Group members having the largest number in the 24-25 year group. All may be considered mature and not identified with teen-age groups.

Control Group members (IRR) represent the draftee population who have served their AD tours. In fact, 95 percent of these members have served about 2 years of AD or more. Compare this number with 85 to 90 percent of RC unit members who have served less than 6 months of AD.

The issue of relaxing standards to conform to individual desires is important to those in units who are and have been civilians most of the time. Over 85 percent are employed. It is not so important an issue with Control Group members, who actually have little contact with units and unit standards. In a zero-draft situation we should expect to find men in units who are basically militarily oriented. The issue of standards of personal appearance should not be so great as it is in this interim period.

IMPROVED OPPORTUNITY FOR ADVANCEMENT

The RC Proposal

Improve opportunities for promotion and for obtaining a commission in the RC.

As stated in the survey, "Suppose you had greater opportunity for promotion and greater chance to be commissioned in the Guard and Reserve." Implied in this question is faster advancement, and perhaps the possibility of advancement in the RC on the basis of one's nonmilitary training and experience. There also is the implication that there should be wider limits on tables of organization and equipment (TOE) and tables of distribution (TD) in RC units so that some sort of temporary overage in grades could be maintained.

Survey Results

Item E6 was fifth in importance for personnel in units, and fourth for those in Control Groups. The educational level of USAR unit REPs is shown in the survey to be higher than that of personnel in other RC categories, and it is understandable that advancement, relative to age peers, might be perceived as inequitable and slow.

Status in the Active Army

Promotion programs in the Active Army are in a state of flux due to the cutback in personnel. Table 1-37 portrays the trend in time in service for officers upon promotion, and Table 1-38 shows the time in grade for officers upon promotion. In the enlisted structure, average time in service upon promotion has been a more important criterion than time in grade. Table 1-39 shows the average time in service upon promotion for the top six enlisted grades. Reductions in strength have curtailed the number of officer promotions authorized, and times in service and in grade are being extended. The effect of strength reductions on enlisted promotions has been to reduce drastically promotions in the top four enlisted grades. Table 1-40 shows a comparison of promotions authorized to grade E-7 and E-6 in FY70 and FY71. To insure that the best qualified individuals received the greatly reduced number of promotions, the Army has added grade E-7 to the centralized promotion system and has established a form of centralized promotion to grades E-6 and E-5. The situation, however, is less severe with respect to grades E-5 and below.⁶⁰

Table 1-37
 TIME IN SERVICE FOR OFFICERS UPON PROMOTION
 IN SELECTED FISCAL YEARS
 (Years)

Upon promotion to grade of	FY65 ⁶⁰	FY69 ⁶⁰	FY71 ⁶³	FY72 ⁶³ (projected)
Colonel	22.3	21.0	20.3	21.0
Lt Colonel	17.0	13.9	14.1	14.6
Major	10.7	7.5	7.6	8.6
Captain	4.0	2.0	2.0	2.9
1st Lieutenant	1.5	1.0	1.0	1.0

Table 1-38
 TIME IN GRADE FOR OFFICERS UPON PROMOTION
 IN SELECTED FISCAL YEARS
 (Years)

Upon promotion to grade of	FY65 ⁶⁰	FY69 ⁶⁰	FY71 ⁶³	FY72 ⁶³ (projected)
Colonel	5.6	5.3	5.4	5.7
Lt Colonel	4.2	3.8	4.9	5.6
Major	5.2	3.2	4.7	5.7
Captain	2.5	1.0	1.0	1.9
1st Lieutenant	1.5	1.0	1.0	1.0

Table 1-39
 AVERAGE TIME IN SERVICE FOR ENLISTED MEN UPON PROMOTION
 IN SELECTED FISCAL YEARS
 (Years)

Upon promotion to grade of	FY65 ⁶⁰	FY69 ⁶⁰	FY71 ⁶³	FY72 ⁶³ (projected)
E-9	20.5	21.3	22.36	22.0
E-8	18.2	17.6	19.35	18.8
E-7	16.0	13.7	14.24	13.75
E-6	11.0	7.0	6.84	6.80
E-5	6.0	1.9	1.85	1.80
E-4	2.5	1.3	1.31	1.30

Table 1-40
 PROMOTIONS AUTHORIZED TO GRADES E-7 AND E-6 IN FY70 AND FY71

Grade	FY70 ⁶⁰	FY71 ⁶⁰
E-7	16,000	2000
E-6	35,000	5000

The Officer Candidate School (OCS) is the primary means whereby the Active Army provides an opportunity for the outstanding enlisted man to become an officer. As the war in Vietnam is being phased down, so is production of officers from OCS. Production of officers from OCS was 18,000 in FY68, 2850 in FY71, and is projected at 1000 for FY72.⁶⁴

Impact of the RC Proposal on the Active Army

Assuming that the implementation of the proposal results in a more favorable promotion situation in RC units than in Active Army units (which is quite possible since the authorized strengths of the RC are relatively unchanged), two factors must be present before there would be an adverse effect on Active Army morale. First, the situation in the RC must have visibility to the Active Army and that is believed to be very slight at best. A very few RC units come in direct contact with Active Army units, and few Active Army members would be aware of the promotion situation in the RC. Secondly, and more important, they probably would not care even if they were aware of it. The situations are too dissimilar to try meaningful comparison, and it is believed that most Active Army members, if they knew about it, would recognize the differences. Surveys indicate a definite awareness among members of the RC of activities in the Active Army, but there is little evidence regarding the awareness or interest of the Active Army members in RC activities.

Status in the RC

Authority for the promotion and reduction of enlisted members of the ARNG units rests with the state adjutants general under policies and procedures contained in NGR 25-6.⁶⁵

Unit commanders are responsible for initiating action to promote qualified enlisted men in the USAR units using the criteria set forth in AR 140-158.⁶⁶

In both RC there are the limitations of unit TOE and TD.

Qualified RC personnel may qualify for a commission by attendance at one of three courses: Active Army OCS, RC OCS, or ARNG OCS.

Net Cost and Cost Effectiveness

There is no additional cost to the Government for promotions in the RC, assuming no change to present TOE/TDA structure.

Legislation Required

Legislation is not necessary to provide improved opportunity for advancement.

Political and Social Implications

This incentive was comparatively popular. Promotion opportunity in a zero-draft environment, particularly at the lower grades, should be an attractive inducement to joining. There should be many vacancies. However, with high retention rates in the higher grades -- E-6 and above -- and therefore longer time in grade, this inducement becomes less attractive. The enlisted career management system attempts to alleviate this problem with the active forces. But the localized nature of RC unit membership does not allow for this type of centralized management. Initially, therefore, prospects for promotion should be excellent. Time in grade at the higher levels will eventually become a problem. A good hard look at promotion policies to guard against the over-age in grade syndrome is indicated.

ACCEPT GREATER RESPONSIBILITIES FOR FAMILIES

The RC Proposal

The RC should take on greater responsibility for a member's family in the event the family needs help due to a misfortune of the member, whether service connected or not.

In the survey the statement is worded, "Suppose the Guard and Reserve took on greater responsibility for your family if something were to happen to you, regardless of whether your misfortune were related to Reserve Component duty." The intent of this item was to assess the respondent's attitude toward the security of his family, and to learn if he might consider attention to his family, as a matter of policy, of sufficient worth to encourage his reenlistment. There is now a great range of practice on the part of unit commanders respecting the interest they take in the families of members of their units. In some units men are viewed very impersonally; if a man is absent from assemblies, there is no follow-up or inquiry to learn the reason for his absence. In others, it is quite the opposite; he is called or visited to learn the reason for his absence. The more personal the manner in which the unit commander treats his personnel should be related to the favorable positive attitude a member has toward his RC duty.

Survey Results

Question E7 ranked fourth in importance for unit personnel and third for those not in units. The concern for family was noted also in Part B of the survey, where RC duty was perceived to have a dissatisfying effect on family life, an item judged by respondents to be very important to them. About 75 percent of all respondents were married, adding cogency to the high ranking of these responses.

Status in the Active Army

The Active Army has long recognized the need to provide assistance to families of members when those families have distressing problems. The Active Army has always prided itself that "The Army Takes Care of Its Own." The Army places the primary responsibility for assistance on the member's commanding officer and the chain of command; however, there are several formal programs established to which the commander and/or the family and member can turn. Since 1900 the Army Relief Society (ARS)

has been "charged with rendering financial assistance to widows and orphans of Regular Army personnel."⁶⁷ The Army Emergency Relief (AER) has been charged since 1942 with rendering financial assistance to members of the Army on AD and their dependents, to include meeting of the immediate needs of dependents of all Army personnel dying while on AD; to certain classes of Army retired personnel and their dependents, to include meeting of the immediate needs of the dependents at the time of death of such retired members and to the dependents of Army personnel missing in action, provided such assistance does not conflict with or duplicate the financial program of ARS and/or the American National Red Cross.⁶⁷ The American National Red Cross renders many varied services to members of the Army and their families, including emergency financial assistance, under established policies and in coordination with AER and ARS. Inter-service reciprocal agreements exist among AER and similar agencies of the Navy and Air Force for reimbursable assistance to members of other Services.

The Army Community Service (ACS) Program has as its objectives to:

a. Establish a centrally located responsive and recognizable service to provide information, assistance, and guidance to members of the Army community in meeting personal and family problems beyond the scope of their own resources.

b. Reduce the man-hours consumed by commanders, staff officers, and the individual soldier in seeking appropriate sources of assistance to resolve complex personal problems.

c. Improve retention of military personnel by increasing career satisfaction.⁶⁸

The ACS services may include information on financial assistance, housing, transportation, relocation, medical and dental care, legal assistance, arrival orientation, and assistance in finding resources for solution of more complex personal problems such as handicapped children. These services are specifically available to members of the RC on ADT and their dependents.⁶⁸ In the case of ACS, appropriated funds may be used for the maintenance and operation costs of ACS facilities, military and civilian personnel costs, and the costs of certain travel and supplies and equipment. Certain nonappropriated funds are authorized to be used in ACS activities under prescribed conditions. Government funds are not appropriated to provide emergency financial assistance to military personnel and their dependents, and consequently AER and ARS depend on

annual voluntary contributions from members of the Army in addition to repayment on loans and income from investments in order to finance operations.

Impact of the RC Proposal on the Active Army

Assuming that implementation of the RC proposal involves no appropriated funds with resultant impact on the Active Army budget, there would be only a minor impact on the Active Army and that would be a favorable one. If the program is effective, it will certainly improve the image of the RC and, therefore, as indicated under the section on Image, will improve the image of the whole Army.

Status in the RC

Members of the RC and their dependents are not entitled to assistance in their personal affairs (general legal and financial) while such members are in an inactive status. These personnel are so entitled while serving on AD, ADT, and AT. Members of the RC who have retired after at least 20 years of AD are entitled to legal assistance.

Two Army publications are of value and are available to RC personnel. "Your State and Local Taxes," DA Pam 360-228,⁶⁹ contains helpful information on state and local taxation of property, income, and automobiles and vehicle registration. "The Army Personal Affairs Handbook," DA Pam 608-2,⁷⁰ while summarizing rights, benefits, and privileges of Army personnel (most applicable to Active Army) contains general information on wills, private insurance, and family support obligations.

Some units have set up advisory service (personal and legal) for their members. This, as in the case of family social activities, has been the result of interest and initiative of individual commanding officers and is more common in the ARNG than the USAR units.

Net Cost and Cost Effectiveness

A program must be defined before costing could be undertaken.

Legislation Required

Legislation is not necessary to increase the scope of assistance to RC families with problems.

Political and Social Implications

Consideration for family ranked quite high among the surveyed

population. And in fact, a principal recommendation of a recently completed RAC study,⁷¹ "Value Conflicts between Civil Society and Military Institutions," was:

...That the Army make maximum effort in finding additional ways, including establishing formal organization and procedures at the unit level, to enhance the happiness and security of families of service members at all grade levels -- to assure the service member that the Army cares about his dependents, and is looking toward their well-being whether or not duty separates him from them. [Emphasis supplied]⁷¹

Although this study is addressed to Active Army members, it has obvious implications for the RC. Part-time employers would generally have no feel for this problem. The uniqueness of the RC as part-time employers can be demonstrated here by displaying interest in and awareness of matters which affect the soldier personally.

CAREER COUNSELING PROGRAM

The RC Proposal

Establish in the RC a career counseling program staffed with individuals who would disseminate factual information on all of the privileges, benefits, and obligations of RC duty as well as advise the member or potential member of career advancement and potential.

The question asked in the survey was, "Suppose there were someone associated with the Guard or Reserve to whom you could go to get factual information about the RC, someone who could properly advise you on all the privileges and benefits of Guard or Reserve Duty." Not only would this be a career counseling program, but it would be an information program about ARNG and USAR duty.

Survey Results

Item E8 ranked near the bottom in importance for all categories of RC personnel.

Status in the Active Army

Career counseling in the Active Army is considered to be a part of effective leadership and includes counseling for reenlistment purposes. Counseling for career planning requires a personal interview between the commander and the careerist for the purpose of providing factual information and advice

...to improve the retention, career development and utilization of enlisted personnel by:

- (1) Motivating the individual soldier toward an Army career.
- (2) Imparting a sense of belonging and an understanding of what is meant to be a careerist [sic].
- (3) Presenting information on the many opportunities, challenges, and benefits of an Army career.
- (4) Dispelling misconceptions about the Army.
- (5) Insuring proper interpretation of the obligations, rights, privileges, and opportunities that an Army career affords.
- (6) Instilling confidence.
- (7) Assisting the individual in setting his career goal and determining how to reach it. 72

Impact of the RC Proposal on the Active Army

Implementation of this proposal is not likely to affect accession or retention in the Active Army, and the only effect which can be foreseen is the favorable reflection on the Active Army of improved RC.

Status in the RC

The career counseling program falls in the general area of the Army command information program. This is an area of emphasis for the adviser whose responsibility it is to help the RC commanders.

Working together they are responsible for:

(a) Informing personnel on a recurring basis of their service obligations, rights on recall to and release from AD, the role of the RC in national defense, and their responsibilities for reporting promptly changes which affect their reserve status.

(b) Informing personnel as soon after having been alerted as possible of call-up of units or individuals to active duty.

Advisers are instructed to take an active interest in this program, periodically reviewing the units' efforts.

Emphasis in this area has varied from unit to unit depending on the initiative of advisers and commanding officers.

Net Cost and Effectiveness

There should be no additional cost to the Government.

Legislation Required

Legislation is not necessary to set up a career counseling program for RC personnel. If this program added a significant number of paid personnel and printed or filmed information, it might require an increase in RC appropriations.

Political and Social Implications

This incentive relates to item E8, and should be a part of a broader information program. It ranked quite low with those surveyed. However, many members of the IRR, particularly, indicated a lack of awareness of RC organization and operations. The incentive ranked quite high among Active Duty members surveyed in the RAC VOLAR-72 Study,⁷³ indicating a basic interest in the RC.

MORE EFFECTIVE LEADERSHIP

The RC Proposal

Improve the leadership in the RC units to make it more effective and, thus, to raise the morale and esprit of RC units.

The question asked in the survey was, "Suppose you were a member of the Guard or Reserve Unit in which the morale was very high, the leadership was well above average, and you felt that you were a part of a highly productive and active unit." From survey returns, there appears to be a general malaise in ARNG and USAR units (from the standpoint of personnel in their sixth year). Generally speaking, leadership is regarded as poor, and morale is low. This question was inserted to try to learn the effect of high esprit in a unit to see if such an element alone would be encouraging to reenlistment; it is presumed that high esprit generally depends upon the leadership of the unit.

Survey Results

The items most closely related to this proposal—E9, improved morale, and E13, improved training—ranked sixth and seventh among unit personnel. A number of other items relate to the proposal: E3, proper utilization of skills—ranked third; the respondent's concept of meaningful duty, i.e., E1, domestic action—ranked first.

Status in the Active Army

...To focus attention on current Army leadership issues, the Chief of Staff established a Leadership Board at Ft Bragg in April 1971. The Board has undertaken a far-reaching study of the needs of Army leadership instruction and is directing its effort toward the ultimate objective of a thorough modernizing and upgrading of this sort of training in the Army School System. As a related project, the Board has created and is sponsoring eight 3-man leadership study teams. Composed of outstanding officers and NCOs, those teams are traveling to Army installations throughout the world to engage in discussions with leaders at all levels in order to develop and disseminate ideas for the improvement of leadership in instruction and in practice. ⁴³

The Army has underway two important innovations with respect to noncommissioned officers (NCOs). The first is the NCO Education System which closely parallels the three level in-service educational program for career development of officers, i.e., basic, advanced, and senior. The second innovation is a system for improved NCO career management. The basic elements of this program include centralized assignment for all

grades; centralized promotion selection to grades E-7, E-8, and E-9; and centralized classification for these grades. A new Enlisted Efficiency Reporting System which was implemented 1 Jul 70 should contribute to selection of the best men for promotion.

A new Officer Personnel Management System will place each officer into one of three career categories and oversee his development in that field. The objective of the new system is "to improve professional performance in the officer corps by eliminating nonproductive competition, allowing individuals to serve in the area of their aptitude and interest, and fostering higher levels of technical competence."

The Army's "Leadership for Professionals" program⁷⁴ ultimately aims ...to develop leaders who successfully accomplish their unit missions while:

- . maintaining the integrity of the officer and NCO corps and upholding the dignity of the individual soldier,
- . creating a climate of mutual respect in which soldiers experience professional growth and exercise self-discipline,
- . demonstrating active and genuine concern for the well-being of their soldiers and families,
- . shielding their soldiers from harassment.⁷⁴

Impact of the RC Proposal on the Active Army

Approximately 25 percent of all RC unit members surveyed in the RAC survey indicated leadership as one of the three most important items of 15 listed. Although there were many comments regarding poor leadership as a primary reason for not reenlisting, it is extremely doubtful that many members of RC units would enlist in the Active Army because of their disenchantment with RC leadership. They would probably just become full-time civilians.

If, on the other hand, a program to improve such leadership is successful, the satisfaction therefrom and the resultant higher morale and esprit would redound to the credit of the whole Army and improve its image.

Status in the RC

It is one of the roles of the adviser to stimulate good leadership in the unit to which he is attached. A number of options are available for individual training which will result in better leadership. Among these are the USAR schools which offer NCO leadership courses to enlisted RC unit personnel and eligible enlisted personnel in the IRR, Command

and General Staff Officer courses (correspondence and resident), and the resident courses at the Army War College, US Army Command and General Staff College, and Army correspondence courses.

Of course, training is not to be equated with good leadership, but it is of great assistance and stimulus.

Net Cost and Cost Effectiveness

Cost to the Government for effective leadership is not quantifiable.

Legislation Required

Legislation is not required to effect changes which will improve RC leadership.

Political and Social Implications

Approximately 25 percent of unit members indicated that this was an important incentive. It has to do with professionalism, and is a major objective of the Modern Volunteer Army (MVA) program. The current effort to modernize the force; to improve training, maintenance, and storage sites; to tie reserve and active units into closer association are all part of the MVA program for the RC. Meaningful goals should be established, however, so that progress can be measured and reported on, and corrective action taken as needed.

CHANGES IN ASSEMBLY AND ANNUAL TRAINING POLICY

The RC Proposals

This area of concern embraces two proposals:

(a) Reduce the frequency of RC assemblies and increase the duration of the period of AT.

The survey item is worded, "Suppose the frequency of Guard and Reserve assemblies were reduced and there were instead a longer period of annual active duty for training." This item presumes no change in training requirements. It was inserted to elicit the preference of individuals for spending more training time during the AT period rather than in assemblies during the rest of the year.

(b) Reduce the number or eliminate weekend MUTA and conduct more frequent weekday assemblies.

The survey item reads, "Suppose Guard and Reserve units were to have no multiple weekend assemblies, but only more frequent weekday assemblies." Again the intent is not to change the amount of time spent in assemblies, but to determine the preference toward weekday or weekend meetings. Unit commanders try to take this preference into account; it is general RC policy, however, to encourage scheduling of more weekend assemblies on the assumption that a concentrated period of training is more effective than more frequent, shorter periods.

Survey Results

The two items related principally to this proposal are E11 and E10, ranked ninth and eleventh, respectively. From 11 to 15 percent of respondents in units chose the items as important.

Status in the Active Army

Not applicable.

Impact of the RC Proposal on the Active Army

Depending on the magnitude of the increase to the AT period, some Active Army units and stations may have difficulty in furnishing required equipment, training, testing, and facilities support to the RC. The second proposal has no impact on the Active Army.

Status in the RC

There are a number of types of unit training presently available. They are displayed in Fig. 1-6. Each unit develops a yearly training

1. **Single training assembly.** A scheduled training assembly of at least 2 hours' duration exclusive of roll call and rest periods. A maximum of 1 day's pay and 1 retirement point is authorized for each assigned and attached individual who satisfactorily completes the entire assembly. This type assembly is authorized only for USAR schools, reinforcement training units, and mobilization designation detachments in a nonpay status.
2. **Unit training assembly (UTA).** An authorized and scheduled training assembly of not less than 4 hours' duration including roll call and rest periods. A maximum of 1 day's pay and 1 retirement point is authorized for each assigned and attached individual who satisfactorily completes the entire assembly. This type of assembly is mandatory for all troop program units except USAR schools.
3. **Multiple unit training assembly two (MUTA-2).** Two unit training assemblies (8 hours) conducted consecutively. A maximum of 2 days' pay and two retirement points is authorized each assigned and attached individual who satisfactorily completes the entire MUTA-2.
4. **Multiple unit training assembly three (MUTA-3).** Three unit training assemblies conducted consecutively on 2 successive days. A MUTA-3 may be conducted with two periods on 1 day and the third on the succeeding or preceding day. A total of 3 days' pay and three retirement point credits is authorized each assigned or attached individual who satisfactorily completes the entire MUTA-3.
5. **Multiple unit training assembly four (MUTA-4).** Four unit training assemblies conducted consecutively on successive days. A MUTA-4 may be conducted with two UTA's on each of 2 successive days or in any other combination. A maximum of 4 days' pay and four retirement point credits is authorized each assigned or attached individual who satisfactorily completes the entire MUTA-4.
6. **Multiple unit training assembly five (MUTA-5).** Five unit training assemblies conducted consecutively on successive days. A MUTA-5 may be conducted with two UTA's on each of 2 successive days with one being conducted on the day preceding, or the day following that 2-day period. A total of 5 days' pay and five retirement point credits is authorized each assigned or attached individual who satisfactorily completes the entire MUTA-5.
7. **Multiple unit training assembly six (MUTA-6).** Six unit training assemblies conducted consecutively on successive days. A MUTA-6 may be conducted with two UTA's on each of 3 successive days. A total of 6 days' pay and six retirement point credits is authorized each assigned or attached individual who satisfactorily completes the entire MUTA-6.

Fig. 1-6—Types of Unit Training Assemblies⁵⁶

program based on the commander's estimate of the needs of his unit. Following the appropriate Army Training Program for his type of unit, he develops an annual schedule. Subjects which can be completed at home stations or local outdoor training sites are conducted during IDT. Annual training provides mission-type training for two weeks under field conditions. Normally, conducted during the months of May through August, it is held at Active Army Installations and state-owned camps.

Net Cost and Cost Effectiveness

Costs to the Government for changes in assemblies and AT would probably be minimal.

Legislation Required

Legislation is not required to effect changes in annual and assembly time and duration. This is governed by Army policy.

Political and Social Implications

Reduced frequency of meetings and longer active training as an incentive ranked quite low with unit personnel of the ARNG and USAR, with 10 to 15 percent indicating that this was a good course of action. A majority of these members (over 60 percent) indicated dissatisfaction with the effect that RC membership had on their free time under present conditions. And over 30 percent of their members indicated that this incursion into their free time ranked either first or second (of nine elements) in importance to them.

Reducing or eliminating multiple weekend assemblies also ranked low with unit personnel of the ARNG and USAR, with 14 percent indicating that this was a good course of action. This would indicate general satisfaction with the present system of conducting training assemblies within units.

INTEGRATION INTO ACTIVE ARMY UNITS

The RC Proposal

Make the RC unit a part of a larger Active Army unit with the RC unit habitually taking its AT with the parent Active Army unit at its home station.

The survey item reads, "Suppose your Guard or Reserve unit were an integral part of an Active Army unit, and your annual active duty for training were always with that parent Active Army unit at its home base." This particular item is a part of concepts Alpha and Bravo in the Force Alternatives study.⁷⁵ It presumes that RC units would be improved with greater identification with the Active Army -- the RC units have a home away from home.

Survey Results

Training with an Active Army unit ranked thirteenth, with only 6 percent of those in units choosing it as important.

Status in the Active Army

This proposal obviously has no meaning if one considers the Active Army by itself. However, one such form of integration is currently in effect at Ft Hood, Tex. Six RC battalions train with and "round out" the 2d Armored Division, while a RC brigade trains with and is prepared to join the 1st Cavalry Division. Although the arrangement is still under study and evaluation, there is considerable enthusiasm on the part of both the Active Army and the RC (more on the part of the latter). There are other variations now under consideration for testing. There are also Mutual Support Programs whereby Active Army units render administrative, logistical, and, in some cases, training support to units of the ARNG and USAR in their immediate geographic area.

Impact of the RC Proposal on the Active Army

Although not affecting recruitment or retention in the Active Army, implementation of this proposal will have major impact on the Active Army. Depending on the relationship established, the number of units involved, and the method of implementation, the impact will vary from one of furnishing training and logistical support to one of complete reorganization of Active Army units.

Status in the RC

At present Active Army support of RC units is provided only when a need exists which is beyond the capabilities of RC units.⁵⁶ Reserve Component troop program units may also participate in Active Army exercises and in USSTRICOM joint field training exercises.

Net Cost and Cost Effectiveness

No additional cost to the Government foreseen for integration into an Active Army unit.

Legislation Required

Congressional legislation would not be required to bring about a closer integration of RC units with Active Army units along the lines of the cooperation already discussed in this section. If a sweeping One-Army program were put into effect, legislation would probably be necessary. Such integration of ARNG units might not be feasible because of their state government affiliation.

Political and Social Implications

This proposal ranked very low with unit personnel of the ARNG and USAR, with only 6 percent indicating that this would be a good course of action. Yet this is already an objective in the MVA program, and was emphasized by the Chief of Staff in his appearance before the House Committee on Appropriations in March 1971.⁶ It must be remembered that the primary reason for entering into the RC, based on our survey, was draft avoidance for 54 percent of the ARNG personnel and for 63 percent of USAR unit personnel. Another 25 percent went in to fulfill their military obligation at a time of their own choice. In all cases affiliation with the Active Army would not appear to have been very attractive.

IMPROVED TRAINING

The RC Proposal

Improve the training significantly in the RC to include better instruction and modern facilities and equipment.

The statement in the survey reads, "Suppose your Guard and Reserve training were significantly improved, including better instruction and up-to-date facilities, equipment, and weapons." While the question centers on improved training, it also includes the facilities and equipment for training. From the standpoint of training alone, this item could perhaps be combined with item 19. Then, so far as the question notes equipment, facilities, and weapons, it perhaps could be kept separate. It is known that there have been recent substantial increases in issue of more modern equipment for RC units, but it is suspected units still fall short.

Survey Results

Improved training ranks about seventh across both ARNG and USAR units, but the ARNG unit respondents (25 percent) chose it much more frequently than did USAR unit respondents (12 percent).

Status in the Active Army

In a message to all major Army commands on 30 Jun 71, the policy of specifying certain training subjects as mandatory was discontinued as was the requirement to keep official training records. The Army intends to concentrate on doing only those things which matter and which need to be done. The new Army Training Policy decentralizes the management and conduct of training by relying to a greater extent on the judgment of the officer corps. The objective of this new approach is Army training which:

- is decentralized in approach, with responsibility for management and execution placed in the hands of unit commanders
- challenges the soldier to demonstrate his ability against high standards
- is measured by testing actual performance
- is enriched by the use of imaginative, challenging exercises which involve the individual soldier in their planning and execution
- includes Adventure Training projects which place the soldier in a relatively unstructured environment and require him to employ his own initiative to accomplish a given task.⁴³

To provide assistance to the small unit leader and strengthen his ability to exercise his expanded training authority, the Chief of Staff established a Training Board at Ft Benning in September 1971.⁴³

With respect to facilities and equipment, the Active Army—like the RC—is circumscribed in what it can do by the amount of funds available. However the phasedown of the war in South Vietnam and reduction in the strength of the Active Army make more Standard A- and B-type equipment available for both the Active Army and the RC.

Impact of the RC Proposal on the Active Army

It is stretching a point to believe that implementation of this proposal could exert directly any appreciable influence on accessions or retentions of personnel in the Active Army. In the long run, however, implementation of the proposal will lead to increased satisfaction on the part of RC members and an improved image of the military which indirectly benefits the Active Army.

Depending on amounts of money budgeted for facilities and for new "buys" of equipment for the RC, these amounts could well result in lower appropriations for the Active Army.

Status in the RC

The problem of training and using old or obsolete equipment for RC use is one that has been of current concern in DOD. Providing new or modern equipment to the RC has received high priority. The Vietnam phase-down has accelerated delivery of equipment. During FY70 RC units were issued equipment valued at \$300 million (the most ever issued in a single year). During the first half of FY71, issues/allocation amounted to \$471 million. This included new wheeled vehicles, UH-1D Huey and CH-54 Flying Crane helicopters, and sufficient M16 rifles for the combat units. It is anticipated that most of the training requirement will be met by the end of FY73.⁶

Storage and maintenance facilities limit somewhat the ability of RC to utilize properly this equipment. Military construction funds earmarked for this use allow some expansion and update of facilities each year.

Net Cost and Cost Effectiveness

There should be a minimal cost. However, a program must be defined before costing can be undertaken.

Legislation Required

New legislative authority would not be necessary for this improvement in RC training. However, Congressional approval for any increased RC appropriation to build new facilities and update obsolete equipment would be required and is included in every year's request for funds. Funds in the amount of \$1.7 million (OMA) have been requested as part of the Project Volunteer funds for FY73 for maintenance and repair of equipment. The request is justified as an aid to recruiting and retention in the all-volunteer environment.

Political and Social Implications

The majority of ARNG units are combat or combat support type, and the current emphasis on modernization would impact more favorably on these formations. A publicized objective of the MVA program is to improve the readiness capability of RC units through a modernization program which includes new equipment, improved training and storage sites, and better training procedures. The total force concept of the Secretary of Defense stresses total preparedness for active and reserve units, and indicates as much similarity as possible in equipment, organization, and operations. As the active force decreases in size the modernization of the reserve structure should accelerate. Obviously the RC must establish goals for equipment phasein and operational readiness, in line with total Army and Defense goals. Progress of the RC in achieving a high degree of readiness will be and is a matter of great concern to the administration.

GREATER NUMBER OF WAC IN THE RC

The RC Proposal

Modify the organizational and MOS structure of the RC to permit a significantly greater number of women (WAC) to join the RC.

The item in the survey is worded, "Suppose the Guard and Reserve organization and MOS structure were modified so that it were possible to have a significantly greater number of women (WAC) as members of the Reserve Components." Somewhat surprisingly, this question has not been addressed in the Selected Analysis.²² The GE TEMPO study⁷⁶ of 15 Dec 71 for DOD suggests that an all-volunteer armed force should have perhaps 5 percent women in the force; we presume this means in the RC as well. There are several advantages to increasing the number of women in the RC. It makes the RC more interesting, it would generally add quality to the force, as the Armed Forces Qualification Test (AFQT) scores of female members are generally higher than those of male members, and the pool of women who have interests consonant with those of the RC has been virtually untapped.

Survey Results

This item ranked last or nearly last in importance among all personnel surveyed.

Status in the Active Army

General Forsythe, Special Assistant to the Chief of Staff for the Modern Volunteer Army, in testifying before the Subcommittee on Department of Defense of the House Committee on Appropriations in March 1971⁶ stated, "Consideration is being given, therefore, to increasing WAC strength by approximately 50 percent—to 1,400 officers, 18,700 enlisted women."⁶ This plan is still the objective of the DA. It is recognized that women have always served in a voluntary capacity in the Army, and the prospect of their increased interest and participation is high.

Impact of the RC Proposal on the Active Army

As with the men, it is doubtful that the Active Army and the RC would be competing for the same woman since it is unlikely that she is undecided between joining the RC and joining the Active Army. More likely she is undecided between RC service and full-time civilian life, or between Active Army service and full-time civilian life. In particular, RC service would be attractive to married PS women who still have an

interest in the military, but whose status is now incompatible with full-time military life.

Even at the projected level of increase of women in the Active Army and considering a significant increase of women in the RC, this source of manpower will hardly be tapped. The impact on the Active Army of implementation of the RC proposal can be expected to be minimal.

Status in the RC

There are, as yet, few women in RC units. As 30 Sep 71 there were 262 WAC of 222,996 enlisted personnel in the USAR units (0.11 percent).⁷⁷ Most of these (202) are in grades E-5, E-6, and E-7.

The ARNG has so few women members that a separate tally is not made by sex. All of these joined as PS enlistments. This may be related to the large percentage of combat units in the ARNG.

Net Cost and Cost Effectiveness

No additional cost to the Government is expected.

Legislation Required

Legislation would be required to eliminate or change Title 10 USC, Sec 3215² which restricts the number of women in the Armed Forces to a maximum of 2 percent of total strength. A considerable increase over present WAC strength is possible even with this low ceiling. The Army budget requests a constant WAC accession of 6000 per year for the years 1971-1977.⁷⁸

Female accessions to the RC have been even lower (less than 1 percent). The Supreme Court on 22 Nov 71 has ruled that discrimination solely on the basis of sex is unconstitutional. No test has yet been made in the courts to see if this ruling may be applied to military jobs.

Political and Social Implications

This proposal was the least attractive of all. Between 2 and 3 percent of guardsmen and reservists in units felt this to be a good idea. At present WAC RC enlisted strength is about one-tenth of 1 percent of total Army Reserve paid-drill strength. The ASD (M&RA), in testifying before the House Committee on Appropriations, March 1971,⁶ stated, as regards RC:

...We are placing additional emphasis on minority and female participation in the Reserve Components. As draft pressures decline and waiting lists for Guard and Reserves are reduced, recruiting of minorities must be vigorously pursued.⁶

A goal of the RC is to increase WAC enlisted strength to approximately 10,000 within the next few years, with 1000 being added by 30 Jun 72. No firm goal has yet been established for the ARNG. Progress should be monitored closely.

ADJUSTMENTS OF BENEFITS AND OBLIGATIONS — IRR

The RC Proposal

All members of the IRR would be obligated to participate in AT if called, with no other training obligation. They would receive benefits for this obligation but on a lesser scale than the members of RC paid drill units.

The survey item is stated, "Suppose you were able to remain in the Individual Ready Reserve (that is, not in a Guard or Reserve unit) with benefits somewhat less than those received by members of the unit—your only Reserve Component obligation being your period of active duty training, if called." As the question is worded, it applies to the IRR and presumed that it would not apply to RC units; that is, it does not suggest that standards respecting numbers of meetings per period of time be reduced in units, but suggests rather that those members in the IRR receive some sort of benefits for staying voluntarily in the IRR, benefits proportionately less, however, than those received by members of units.

Survey Results

The item was ranked eighth by unit personnel, but was second in importance for respondents in the IRR and in the Stby.

Status in the Active Army

Not applicable.

Impact of the RC Proposal on the Active Army

Implementation of this proposal would have no effect on accessions or retentions in the Active Army.

Status in the RC

No provision is now made for providing lesser compensation and/or benefits for reduced service.

Net Cost and Cost Effectiveness

Program must be defined before costing could be undertaken. A saving might occur if an appreciable number reenlist.

Legislation Required

It is possible that legislation would be required to implement this incentive. None has been formulated at the present time. The "Individual Ready Reserve (IRR) Study, Phase II,"⁸ report concludes that maintenance of the IRR at a strength of 650,000 in the MVA environment for a reasonable expenditure is not feasible. Results of the survey done for the IRR

report indicate that cash incentives (reenlistment bonus or educational benefits) at the level of \$200 to \$300 per year are cost effective. If such incentives were desired, legislation to provide funds for them would be required.

These incentive benefits would be more attractive to members of ARNG and USAR units than to IRR personnel; this is because of the very considerable benefits IRR personnel now have under the GI Bill.

Political and Social Implications

Eighty percent of the IRR group indicated that they had been involuntarily assigned from the active forces. Yet 34 percent felt that they would be inclined to remain in the IRR with benefits "somewhat less than those received by members of units" and also subject to call for AT. This reaction implies that the Army should be prepared to spell out those lesser benefits which would attract this group and should plan to test the concept.

In addition, 17 percent of the ARNG and USAR unit personnel indicated a desire to extend for the IRR under the above conditions. Admittedly, first priority should be to encourage unit reenlistments, but the IRR option should also be emphasized if reenlistment fails. The Gilbert Youth Survey indicated that an option to transfer to the IRR after three years' service with a RC unit would interest 15 percent of those who had initially shown no desire to join the RC.

INCREASE RECRUITING FROM ACTIVE ARMY

The RC Proposal

Increase the recruiting of Active Army personnel into the RC.

Survey Results

Not applicable.

Status in the Active Army

Not applicable.

Impact of the RC Proposal on the Active Army

Since 3 Jan 72 first-term members of the Active Army serving overseas who have either completed 8 months of an unaccompanied tour with 18 months of total service, or who have completed 12 months of an accompanied tour with 24 months of total service, have been eligible for immediate release if they could find a vacancy in an ARNG or USAR unit.⁷⁹

Active Army personnel serving in the Continental Army of the US (CONUS) had been able to get out up to 179 days ahead of ETS by agreeing to join a unit of the ARNG or USAR. If they have served in Vietnam, they can be released up to 18 months early and were able to be released up to a year early if their ETS was before 31 Dec 72.

The numbers of Active Army personnel that would be released early based only on the criteria of overseas duty, accompanied or unaccompanied, Vietnam tours, and total service were completely predictable. How many personnel would elect a "still earlier out" by joining a RC unit was unpredictable, and apparently the large numbers desiring to do so have had considerable impact on Army personnel planning. As of 25 Jan 72 consideration was being given to curtailing this program because some units in Europe were becoming dangerously under strength. (Program was cancelled effective 21 Feb 72.)

It is unlikely that the RC will prevail on an Active Army member who was planning to reenlist in the Active Army to join a RC instead. It is only if the person were going to leave the Active Army anyway for civilian life that he becomes a possible candidate for RC recruiting. Thus, except for the turbulence created by the early release program, implementation of the RC proposal should not materially affect accessions or retentions in the Active Army.

Status in the RC⁸⁰

A test program was conducted by CORC in conjunction with CONARC in August 1971 actively to recruit personnel who were leaving the service. Experienced career counselors were stationed at Ft Knox and Ft Lewis to interview each separatee and explain the benefits of RC service. Thirty-six percent of those so counselled were recruited. This effort was expanded Army-wide as of 3 Jan 72. This is a relatively inexpensive program with more than offsetting returns in saving of training cost. Selected RC personnel were placed on special ADT for a 2-year period to serve as career counselors. After a special training course in December 1971, they were stationed at the 25 installations which have the highest number of separatees. All other installations which process personnel for discharge have received information packets and instructions to have Active Army career counselors interview the men. In the first week (3 to 7 Jan 72), 2178 men were assigned to RC units.

Net Cost and Cost Effectiveness

A definition of the program must be made before costing can be undertaken.

Legislation Required

Legislation would not be required to increase the recruiting of Active Army personnel into the RC. It is presently a part of the presentation made to these personnel at ETS. Emphasis on such recruitment of PS personnel varies with the need of the RC.

Political and Social Implications

During 1971 there were only 2600 accessions from active forces into the RC. During the first quarter of 1972, with the special emphasis on recruiting tied in with early discharge, 19,000 men have joined, two-thirds with ARNG and one-third with USAR units. However the terms of enlistment have been mostly for about 12-to 18 months, rather than for the desired 6 years.

Prior to the recent recruiting effort described above, only about 1 percent of the USAR unit accessions were from the Active Army. Based on the current RAC VOLAR-72 Active Army survey,⁷³ the potential for RC enlistment is considerably greater. For example, about 20 percent of grades E-1 to E-5 Active Army soldiers indicated that they probably or definitely would join the ARNG or the USAR.

RESERVE COMPONENT INFORMATION PROGRAM

The RC Proposal

Establish an information program to reach each member of the RC at least once annually to insure that he is kept up to date with respect to his benefits, obligations, and choices. The program must start with adequate briefings and handout materials as the individual is about to enter the RC, either from civilian life or from the Active Army or from the RC of another service.

This item is related to question 18. Many members of the IRR do not really regard themselves as being a part of the RC. It appears that some sort of information program—for example, a quarterly flier to members of the IRR—could acquaint such nonactive members with their rights and their obligations, and if such a document were sent to all RC members it could also acquaint them with the benefits of more active participation.

Survey Results

Not applicable.

Status in the Active Army

Not applicable.

Impact of the RC Proposal on the Active Army

Proper implementation of this proposal will require revision of briefings and procedures at transfer activities.

Status in the RC

Active Army advisers to RC units are charged as part of their duties to assist unit commanders in informing personnel on a recurring basis of their service obligations, their rights on recall to and release from AD, the continuing role of the RC in national defense, and their responsibilities for reporting promptly any changes which affect their RC status. They are also to inform unit members periodically of any changes in the Army or other defense actions that affect them.

Net Cost and Cost Effectiveness

The program must be defined before costing can be undertaken.

Legislation Required

Legislation would not be required to establish additional RC information programs. Congressional approval of requests for appropriations would be necessary if this were to involve great additional cost.

Political and Social Implications

"A plan for managerial action should be accompanied by a plan for communicating it to those who will be affected; reliance upon mutual mind reading is inadequate."⁸¹

As we move forward to an all-volunteer environment, the changes which are to be implemented in goals, policies, and programs for the RC will necessitate development of a timely coordinated information program, addressed to reservists, potential reservists, and to the general public. The importance of the information plan and its execution should not be underestimated, and communication takes place internally at all levels, from the Pentagon to the unit, downward and upward, and externally to the public.

The current counseling program with the active forces, the recruiting and advertising campaign, the approach being taken to employers are all part of an information program based on current conditions. A wider program should be prepared which addresses specific target groups—internally, as for example IRR members, and externally, as for example organizations such as the American Legion and the Veterans of Foreign Wars. The program should be a continuous one, including such variables as the target audience, the timing, the method or media to be used, and the amount and type of information to be given and to be received. Communication is two-way and must be planned for in this way. The survey itself, of course, provides a means of communicating internally and externally. Misconceptions, misapprehensions, unawareness should be anticipated and dealt with.

STANDBY DRAFT FOR RC

The RC Proposal

Maintain draft machinery in a standby status to be used if the strength of the RC falls significantly below mandated levels in the volunteer environment.

This item was not included in the survey instrument because it was felt it would be too sensitive and might excite unfavorable reaction among respondents. The standby draft procedure has been described in some detail in the Selected Analysis (Incl 11).²² The concept is that the draft machinery would be used to draft into the RC if RC strengths fell significantly below the mandated levels in a volunteer environment. Four different options are described in the Selected Analysis, those options in which the individual volunteers entitling him to choice of MOS and shorter service commitment.

Survey Results

Not applicable.

Status in the Active Army

The official position of the DOD as recorded by the ASD (M&RA) is as follows:

After the induction authority prescribed in the law has been terminated, and subsequently, it is determined that the military manpower needs of the Nation cannot be met through voluntary programs alone and that additional manpower is needed to insure the national security, the administration believes that authority to reinstate the draft should come from the Congress. However we are convinced that all authority presently prescribed in the law, other than the authority to induct, should remain in effect after the authority to induct has been terminated so that inductions could proceed with a minimum of delay should they become necessary and are authorized by the Congress.⁵

Impact of the RC Proposal on the Active Army

The mere existence of the Selective Service System in a standby status whether for RC only or, as is more likely, for all components of the Armed Forces is not likely to impact on the Active Army. Of course, the need to implement the draft for the Active Army signals the failure of the all-volunteer force and negates the very environment

of this study. If the draft must be implemented only for the RC, it must be because the all-volunteer concept is working for the Active Army, and, therefore, there would be no significant impact by drafting for the RC. However, under this last set of circumstances there could be the unusual situation where the Active Army could be the recipient of "draft-induced" volunteers attempting to avoid being drafted into the RC. If the draft had to be implemented for both the Active Army and the RC, again it would mean the end of the all-volunteer experiment, and it must be assumed that numbers of personnel available to the Active Army will be in accordance with established requirements and priorities.

Status in the RC

At present there is no draft of personnel into the RC nor is there legal authority to do so. Some states have the power to draft into the state guard for state duty.

Net Cost and Cost Effectiveness

Assuming a skeletal Selective Service office for the RA is maintained, there would be minimal additional cost for a Reserve standby draft.

Legislation Required

Legislation to maintain the Selective Service System was incorporated in the bill which became PL 92-129.¹⁰ Specifically it amends the Military Selective Service Act of 1967 as follows:

If at any time calls under this section for the induction of persons for training and service in the Armed Forces are discontinued because the Armed Forces are placed on an all-volunteer basis for meeting their active duty manpower needs, the Selective Service System, as it is constituted on the date of the enactment of this Subsection (29) shall nevertheless be maintained as an active standby organization with (1) a complete registration and classification structure capable of immediate operation in the event of a national emergency, and (2) personnel, adequate to reinstate immediately the full operation of the System, including military reservists who are trained to operate such System and who can be ordered to active duty for such purpose in the event of a national emergency.¹⁰

Further amendment guarantees the necessary funds for operation of this system.

Registration of male citizens and resident aliens is required under Sec 3 of the Selective Service Act, as amended, originally passed in 1948.

Authority to induct into the active forces expires by law (PL 92-129) on 1 Jul 73. Legislation has never been passed to draft men into the RC. It may be legally permissible under the broad language of the existing laws. Congressional approval of such a politically sensitive action would certainly be requested.

According to the report of the Gates Commission,⁸² the constitutionality of emergency or wartime conscription is well-established. The question, still open for Supreme Court decision, is whether the power to conscript derives from the clause that "Congress has the power to declare wars" or "Congress has the power to raise Armies." If it derives from the latter power, then peacetime induction is constitutional. The Gates Report further states, "There is a fair body of opinion that the constitutional authority for peacetime conscription is ambiguous."⁸²

The Selective Service plans, depending upon the funds available, to continue in operation, register all newly-eligible males, conduct a random sequence lottery of birthdates each year, establish a pool of men in the 1-A category, arrange for their pre-induction physical and mental qualifying examinations, and have orders typed and addressed to this pool, ready for orders to induct in event of an emergency.

Political and Social Implications

The President's National Advisory Commission on Selective Service⁸³ (Burke Marshall Commission) in 1967 mentioned the possibility of using the draft to maintain RC strength. The recommendation stated: "If strength of units [reserve] cannot be maintained, then eligible registrants [are] to be inducted into the Reserve to discharge their military obligation."⁸³

As recently as 15 Feb 72, the Secretary of Defense mentioned the possibility again in his annual report⁵ to the Congress. He qualified his remarks by observing that this draft was not absolutely essential at this point. He highlighted the important role that he envisaged for the RC in the future and mentioned that with draft pressure already being removed reserve forces strength has dropped 44,722 below the authorized level.

There has not been much public reaction to date on the draft possibility referred to by the Secretary. However, we can anticipate that all of the arguments used to support discontinuing the draft for the active forces will also be introduced when a firm RC draft proposal is presented to the Congress.

Strong reaction has already been voiced by the National Guard Association in its February 1972 issue of The National Guardsman.⁸⁴ The final paragraphs of the editorial on the inside front cover state:

Without going into the questionable constitutionality of a Draft proposal, nor the highly impractical nature of such an attempt, considering the dual State-Federal status of the National Guard, Dr. Curtis W. Tarr, head of the Selective Service System, told the Adjutants General at their mid-Winter meeting in January that it "would be bad for the Guard, and a calamity for Selective Service. The saddest part would be bringing reluctant kids into what you now consider a proud outfit."

Our tradition, our needs, our pride—and the law of the land—all support our opposition to use of a Draft to fill our National Guard units.⁸⁴

In addition to the above there appear to be several very practical reasons why a draft for the RC would be complicated if not completely impractical.

If a local RC unit were at authorized strength, no one in that area would be drafted. If it were below strength, the young men in the immediate area (50 miles or 90 minutes travel time) would be vulnerable to be drafted. However, in order to avoid the draft, they could move to another area where there was no RC unit or where RC units were at authorized strength.

If a young man chose to refuse induction into the local RC unit, the local police and courts would have to become involved. This could well lead to agitation to do away with the local RC unit or failure to enforce draft actions.

Since only certain MOS requirements would have to be filled, there would be a certain amount of discrimination by skills, education, or other criteria as to who would be drafted into the local unit.

The importance of a strong incentives program, with its measured effectiveness, emerges quite clearly if the program is indeed to forestall

the draft. The Secretary of Defense referred to higher pay and accelerated recruiting as the first step in building up RC strength. He indicated that it might become necessary to request authority for bonuses to stimulate enlistments. The draft issue, then, is tied in to an incentives program. At this writing no funds have been allocated for this program for FY73.

RESERVE COMPONENT ENLISTMENT OPTIONS

The RC Proposal

Broaden the range of enlistment options available for persons enlisting in the RC with benefits varying with the degree of commitment and the type of RC service selected.

This item suggests that a range of enlistment options be available for persons coming into the RC, both those from the active service and those having no prior service. Such options would include varying levels of obligations for varying degrees of commitment. This proposal would be related to items 25 and 29. The options might vary with the length of service commitment and would be related to an enlistment bonus, to choice of MOS, and to the intensity of RC training to which one is committed.

Survey Results

Not applicable.

Status in the Active Army

The 6-year military obligation is imposed by law² on every male individual under age 26 who enters the military service, whatever component he enters, and whether he volunteers or is drafted. Within the Active Army the discussion of enlistment options has centered on those options which allow a volunteer for combat arms to select his location or unit of service.^{6, 43} The introduction of further options is not expected to be limited to the combat arms, but focused on any field temporarily undersubscribed. Nowhere, however, does it appear that the Active Army considers it necessary to obtain legislative relief from the 6-year obligation. This may be due, at least in part, to the fact that considering Active Army duty only, a man already has an option of enlisting for 2, 3, or 4 years, with the remainder of his 6 years to be served in the RC in various ways prescribed on the basis of number of years of Active Army service and some measure of choice. In contrast, the REP-63 must serve a 6-year enlistment in an ARNG or USAR unit.

Impact of the RC Proposal on the Active Army

Insofar as the RC obtain relief from the legislative requirement for 6 years of service and the Active Army does not obtain this relief,

the result is, in effect, a Reserve Service Obligation clause as a part of the Active Army contract. Granted that under these circumstances this would probably be service in the Stby, nevertheless there could be sizeable numbers who would want to try the Active Army for 2 or 3 or even 4 years, but would be reluctant to acquire the additional liability for call-up inherent in being in the Stby.

In the event that the RC and the Active Army received relief from the legislative requirement for 6 years of service, there would be a tendency for enlistments to increase in the Active Army since the advantages would ostensibly remain the same but the obligations would be lessened. Without some form of Reserve Service Obligation clause, however, it is almost certain the RC (at least the IRR and Stby) would suffer.

If the RC enlistment options take other forms within the framework of the 6-year service requirement, the impact on the Active Army can be expected to be minimal.

Status in the RC

A service obligation may be contractual (assumed by enlistment) or statutory (imposed by law).

All persons whose initial enlistment commenced after 11 Aug 63 incur a 6-year service obligation in a RC. Service obligation may be fulfilled in any of a variety of ways.

Personnel who have already completed military service may enlist in the RC for less than 6 years.

Net Cost and Cost Effectiveness

Costing cannot be accomplished until the program has been defined.

Legislation Required

Legislation would be required to change Title 10 USC, Sec 651² to allow initial NPS enlistment options for less than 6 years. No such legislation has been drafted or requested at this time.

Political and Social Implication

Enlistment options—which include varying terms of enlistment for varying amounts of bonuses, and which may be applied to those possessing

critical skills—have been legislated by the Congress. The proposals have been generally publicized by the media and by Army spokesmen. In fact, the publicity may well have an impact on potential enlistees by creating a let's-wait-and-see attitude. And of course, within the Army budget priorities become important and are reflected in the amount of money actually earmarked for bonuses for FY73. In any event, as with other new programs, the Army must be prepared to test and/or measure the effects of any options. The results will be of much general interest.

ENLISTMENT BONUS

The RC Proposal

Pay a bonus of \$600 for a first-term 6-year enlistment contract.

Only reenlistment was considered in the initial survey. A question dealing with an enlistment bonus of \$600 for a 6-year term of service was included in the first-year personnel survey instrument. This amount for a 6-year enlistment is considered to be comparable in scale to the kind of enlistment bonuses suggested for the Active Army.

Survey Results

Survey responses indicated a potential net enlistment increment of 14 percent (combined average of all ARNG and USAR responses) if an enlistment bonus of \$600 were offered. It ranked ninth of 11 economic incentives to enlistment as measured by the RAC survey of first-year personnel.

Status in the Active Army

A proposed enlistment bonus for the Active Army is designed to attract first-term enlistees into the combat arms. On completion of training and award of a combat or combat-related MOS, \$1000 is paid. Successive payments of \$1000 are paid on the anniversary of the first payment up to a total of \$3000 for a 3-year enlistment. Congress has authorized such a bonus (PL 92-129)¹⁰ subject to regulations to be prescribed by the Secretary of Defense. As of 1 Mar 72 the Secretary of Defense has prescribed no such regulations.

Impact of RC Proposal on Active Army

Although the proposed Active Army bonus is limited to enlistment in the combat arms, the RC proposal is not so limited. The nature of the RC is such that such a limitation would be discriminatory with respect to component and geographical area. The great majority of reserve combat units are in the ARNG, while the USAR consists mostly of support units and individual reinforcements. Reserve combat units are not uniformly distributed throughout the US, and a reservist is limited in choice to those types of units in his own immediate geographical location. Further there is not now any indication that the

combat arms of the RC rather than other technical skills will be suffering the expected shortages. For the purposes of discussion, the combat arms limitation in the Active Army proposed bonus is of no direct consequence as can be seen below.

If the Active Army does not implement an enlistment bonus, the implementation of the RC proposal probably will not greatly affect the Active Army because they have essentially different target groups, and the size of the RC proposed bonus taken together with the commitment period is not deemed sufficient inducement to make people switch groups.

If the Active Army implements an enlistment bonus, the impact of the proposed RC bonus would be negligible. Quite aside from having essentially different target groups, the disparity in the commitment period and the further disparity in the size of the bonus insure that the effect of implementing this RC proposal will be negligible for those who might be thinking of joining the combat arms of the Active Army.

Status in the RC

At present there is no enlistment bonus offered in the RC for initial enlistments.

Net Cost and Cost Effectiveness

Net cost and cost effectiveness ranking was not calculated for the enlistment incentives on the same basis as the reenlistment incentives. Based on the average predicted number of NPS enlistees required per year, a \$600 enlistment bonus might cost \$9 million per year for each component.

Legislation Required

Some legal authority for an enlistment bonus may now exist in the Congressional authority, granted in PL 92-129,¹⁰ to pay an enlistment bonus of not more than \$3000 to any "person who enlists in any combat element of an armed force for a period of at least three years." This authority is at best ambiguous, no appropriations to fund such a bonus have been made, and the authority expires on 1 Jul 73.

In the DOD substitute for S 1470/HR 6051^{3,4} provisions have been added to encompass an enlistment bonus which is in addition to the already-provided reenlistment bonus. In addition to the discussion of this bill found under the section dealing with the re-up bonus, the following points anent an enlistment bonus are made:

(a) The authorization to give "special pay to persons who have not previously been members of an armed force or a National Guard or Reserve component thereof. Such persons accepted for enlistment must agree to remain members of the Selected Reserve for a period of at least three years."

(b) The amounts of special pay would be \$2200 for a person possessing a critical skill and \$1100 for anyone else for a 6-year enlistment. Lesser payments for shorter periods are also authorized.

(c) Various methods of payment are authorized, and a ceiling of 12 years military service as computed under Title 10, USC, Sec 1332² during which eligibility for such special pay exists.

(d) The maximum total amount payable to one individual is restricted to \$3300 for enlistment and reenlistment bonuses paid for service not to exceed a total period of 12 years.

(e) Provision is made for ordering personnel to AD who accept the bonus and fail to perform satisfactorily.

Political and Social Implications

This issue has been treated under Enlistment Options, above. The selection of those who are to receive the bonus(es), the timing, the amounts, the publicity attendant are all important aspects of the administration of this bonus.

POST EXCHANGE AND COMMISSARY PRIVILEGES

The RC Proposal

Extend to all paid-drill members of the RC full-time PX and commissary privileges for them and their dependents.

At the present time, PX and commissary privileges are available only when the individual is on AD training, or on AT, and after a RC member has become eligible to draw retirement pay. The advantage of PX and commissary privileges often is regarded as not being very great, and it might well be that such could be offered to RC personnel on a full-time basis without it being very costly. It probably would not be reasonable to consider the establishment of additional PX's and commissaries just to accommodate RC personnel.

Survey Results

Mentioned frequently in write-in responses.

Status in the Active Army

These privileges are now available to members of the Active Army and their dependents.

Impact of the RC Proposal on the Active Army

This proposal is limited for current discussion purposes to paid-drill Army reservists in order to test the feasibility on an incremental basis. There are 660,000 paid-drill Army reservists distributed as follows:⁸⁵ ARNG—400,000; USAR—260,000.

Assuming a ratio of 1.2 dependents per member,⁴¹ the total paid-drill strength plus dependents is 1,452,000. The RAC surveys indicate that on the average 55 percent of the reservists are married. This then results in a PX and commissary population of 363,000 families plus 297,000 single reservists shopping for a total population of 1,452,000.

Some 72 Army commissary stores now serve about 686,757 military families authorized to use such facilities.⁸⁶ This is an average of 9538 families per store. Operations under these conditions have led to long waiting lines at checkout stands, and at Ft Knox, Ky., the situation has required 50 to 60 people to be kept waiting outside the building at peak hours for room to get inside the store. This has led to stores going to a 54-hour, 6-day work week, and even Sunday operations, in an

attempt to ease the situation. Small and sometimes uneconomical annexes have been established with fast moving items for customer convenience and to alleviate crowding at main stores. The Army has requested funds from Congress to build new commissaries at three of the Army's largest posts—Fts Knox, Hood, and Campbell. Based on a CONARC average estimated monthly expenditure of \$125 per family, it is estimated that some of these stores are meeting only 50 percent of their customer needs.

The potential additional load of 363,000 families represents an increase of some 53 percent. Admittedly, many families of reservists are not geographically located so as to be able to take advantage of these privileges even if they are granted, but, in any event, it is obvious that the impact on the system will be great. Moreover this same fact of geographical location results in an inequity among the reservists since the benefits would be derived only by those reservists who happen to live within a reasonable distance of a commissary or PX.

The fact that access could be granted to all DOD shopping facilities would not materially alleviate the overcrowding situation as the number of families being added to the DOD facilities increases to around 573,550 by virtue of adding Navy, Air Force, and Marine RC in paid-drill status.

The situation with respect to the use of PX's appears to be somewhat different. Officials of the Army and Air Force Exchange Service (AAFES) indicate that, in general, there would not be an insurmountable problem in absorbing the additional customer load.⁸⁷ This could be done by expanding operating hours even more than has been done in recent months. Specific problems would be encountered, however, in the New York and Chicago areas where there exists the unfortunate combination of large numbers of RC personnel and only a few small PX facilities.

Recognizing that PX facilities are not conveniently located for all members of RC, a few survey respondents suggested that a mail order system be established. It is interesting to note that such a system is under preliminary study by AAFES, and, if it is ever implemented, officials indicate they would be pleased to have the additional customers.

Notwithstanding the foregoing, there is other evidence³¹ that exchange facilities are already strained beyond their capabilities, and

additional patrons would be an added burden.* In view of the conflicting evidence and in consideration of the informality and on-the-spot nature of the AAFES responses, it would appear advisable to make a more detailed investigation of this proposal before any final decision is made.

Status in the RC

PX and commissary privileges are available to reservists (and their dependents) who are drawing retired pay, and to RC personnel on ADT or AT.

Net Cost and Cost Effectiveness

PX and commissary privileges pose no additional monetary cost to the Government, but the loss in services and, possibly, the privilege itself could be costly.

Legislation Required

It is not known to what extent new legislation would be required to extend full PX and commissary privileges to the RC. Some authority may exist under present law. The Judge Advocate General's Office has not yet been asked for an official position on this question. Undoubtedly, the economic and political effects would make it advisable to request Congressional approval of such an extension.

Political and Social Implications

If a proposal is made to extend these privileges to RC personnel on a full-time basis, then lobbyists representing retail outlets in the vicinity of Army posts will make themselves heard. In fact the whole issue of having PX's and commissaries for military personnel might well be brought out for discussion.

The Interagency Committee,³¹ in addressing the reserve retirement subsystem, treated the matter of medical, exchange, and commissary

*It should be noted that the "additional patrons" to which the Interagency Committee refers are only those reservists who are eligible for retirement and who might elect to receive their annuities before age 60. On the other hand, we are considering all active and retired reservists.

privileges. In brief, noting that the facilities involved are already overtaxed, the committee felt that further liberalization of privileges is unwarranted. A different view was expressed by the Chief of the National Guard Bureau⁸⁸ when he stated that "a lot of people in the Guard" felt that it would help retention "if post exchange and commissary privileges were extended to reservists on a general basis."⁸⁸

Another aspect is the potential impact of welfare funds generated through the earnings of the exchange revenue fund if utilized by RC personnel. Active duty personnel can enjoy the support of these welfare funds for gymnasiums, libraries, craft shops, charitable activities and other related purposes. A similar program designed around RC needs might be examined. Such a program would also support the need for extra-military activities involving families, discussed previously.

WINTER ANNUAL TRAINING

The RC Proposal

Authorize periods of AT in the winter months to accommodate those individuals, such as farmers, who have their busiest work season during the summer and those individuals who otherwise would lose vacation time. Reserve Component members often suggest that the summer period of AD interferes with vacation schedules and sometimes with seasonal work, especially for those persons, say, who are farmers. The proposal is made that AT be conducted also during winter months.

Survey Results

Mentioned in write-in responses.

Status in the Active Army

Not applicable.

Impact of the RC Proposal on the Active Army

Notwithstanding the difficulties in determining whether a unit should take its AT during the summer or winter periods or at which post it would be able to train during the winter, many RC units take their AT at Active Army installations and receive Active Army support in the form of equipment, testing teams, maintenance facilities, etc. Whether winter AT periods benefit the Active Army units by tending to distribute the support workload over time or whether it adversely affects the Active Army units by adding additional units to be supported depends on where and when the RC unit had taken its AT previously and its support requirements.

Status in the RC

Most units attend AT during the period May through August.⁵⁶ Some units presently train in the winter, most notably hospital units, military intelligence units, and Alaskan-based units which require snow conditions.

Net Cost and Cost Effectiveness

Winter AT additional costs should be minimal; however, program must be defined before costing can be undertaken.

Legislation Required

Legislation would not be necessary to provide RC units with the option of winter, rather than summer, AT.

Political and Social Implications

This particular proposal appears to be one which must be addressed at the unit level. The impact on units will vary considerably, depending on locale. The nature and effectiveness of training will also vary, depending on the environmental conditions.

Survey returns show that summer AT is an issue of importance primarily to farmers. These personnel may suffer a real economic hardship when AT coincides with a critical period in their business. This segment of survey respondents was otherwise favorably disposed to RC service because it offered them a steady additional income and a change-of-pace activity.

Implementing this proposal creates problems. Unless a unit is made up of a very high percentage of agricultural workers and farmers, a change to winter AT would bring forth the same complaints with attendant failure to reenlist from the other men.

RESERVE SERVICE OBLIGATION CLAUSE

The RC Proposal

Include a RC service obligation clause in Active Army enlistment contracts.

All males between the ages of 18 and 26 whose initial enlistment, induction, or appointment commenced after 11 Aug 63 incur a 6-year service obligation. For RA enlistees or inductees active service plus reserve service must equal 6 years. This obligation will not be lifted with the expiration of the draft. It is, however, an obligation which results in involuntary service in the RC for the majority in the IRR. Politically this obligation may well become an issue when the draft expires, apart from the merits of having a trained manpower pool available as fillers in the event of emergency.

Survey Results

Not applicable.

Status in the Active Army

The legislative requirement that each male between the ages of 18 and 26 who enters the service must serve a total of 6 years has been discussed under the item, Enlistment Options.

Impact of the RC Proposal on the Active Army

This is discussed under the item, Enlistment Options.

Status in the RC

The status of service obligation is the same in the RC as in the Active Army.

Net Cost and Cost Effectiveness

There should be no additional cost to the Government.

Legislation Required

Legislation would not be required under the present law (Title 10, USC, Sec 651)² to add a RC service obligation clause to Active Army enlistment contracts.

Because of the unusual burden which would be placed on men who volunteer to be required to serve in RC units rather than in an IRR status, Congressional action might be requested.

Political and Social Implications

This proposal is treated in Incl 7 of Selected Analysis.²² It suggests that all Active Army volunteers (and draftees) have a RC obligation. Such a clause would ensure a continuous flow of personnel into the RC, but it might also deter voluntary enlistments.

C. COST ANALYSIS OF INCENTIVE PROPOSALS

INCENTIVE PROPOSAL NET COSTS

As a part of Phase II, the Work Statement¹ required:

(c) The net costs (one-time and annual) of the proposal. Net costs will be developed considering new costs such as the cost of an incentive and costs avoided such as reduced training costs. To the extent possible, standard Army budgetary cost categories will be used.

(d) The cost effectiveness of the proposal.

The net cost of each reenlistment incentive proposal is determined by calculating the proposal's gross cost and subtracting Reserve Enlisted Program (REP) training costs which are saved. For simplicity it is assumed: that both costs and savings are for a full year; that reenlistment is for a 3-year period; and that a full mandated force is maintained through necessary enlistments. The various incentives are identified in Table 1-41, Glossary of Definitions. Of these, D1 through D12 are termed the economic incentives for which cost factors and net costs were developed.

The gross cost per enlisted man, per year, is calculated by dividing the total gross cost of adding a particular incentive by the enlisted mandated strength. The net cost is defined by Formula B1 (Annex B2).

Apart from the grouping of incentives by the respondents, with related costs, another aspect of the interrelation of proposals has to do with the extent to which reactions to the various proposed incentives reflect hidden or latent psychological factors. Annex B4, Factor Analysis, describes a procedure for arriving at these underlying factors, using the correlation coefficient matrices of Tables 2-1, 2-2, and 2-3.

The first six factors have been identified. In all cases, the first six factors together account for 90 percent of the total variance and

Table 1-41
GLOSSARY OF DEFINITIONS

Incentive number	Definition
C1	No incentive
D1	50 percent pay raise
D2	\$500 bonus for reenlistment
D3	No loss of income during AT
D4	\$500 educational benefits
D5	Low cost SGLI
D6	Improved retirement benefits
D7	Medical and dental benefits
D8	Guaranteed home loan
D9	MOS proficiency pay
D10	\$1250 Federal income tax exemption
D12	Combined economic incentives
E1	Community action
E3	Better skill utilization
E5	Grooming and personal appearance
E6	Promotion opportunity
E7	Assumption of family responsibilities
E17	Combined no-cost incentives, listed above
E18	Combined economic and no-cost incentives

therefore represent the primary or true principal factors accounting for the latent predilection of the respondents as reflected in the correlation coefficient matrix. Because of the poorer data for the IRR, interpretation has not been stressed beyond really the first three which are similar to the interpretations for the ARNG and the Army.

To reiterate, it would appear that the first three primary factors, which are the same for all RC, are in order of importance: (a) proclivity to the reserves, (b) a preference for reinforcing combination packages of incentives, and (c) a preference for immediate benefits. In the case of the USAR and the ARNG, the fourth principal factor appears to be pay, or, more broadly, major economic benefits in preference to cost-free incentives. Lastly, the fifth and sixth factors appear to be related to a careerist attitude and a civilian attitude for all components.

The lesson for the development of any incentive program to be learned from this factor analysis is that, first, future incentives should emphasize and contribute to a positive image of the reserves, thereby building upon the common predisposition to reserve service. In addition, they should prepare composite packages of reinforcing incentives and immediacy in recognizable benefits. Pay or general economic benefits are of course desirable, but they are, as we have seen, less cost effective. It would appear that no single incentive could be designed which would appeal both to the careerist attitude and the civilian attitude, since the two are distinctly at odds. Comparing the actual incentives proposed, we can see now why the cost-free incentives are so popular. They contribute to the image of and life in the reserves; they represent a combined package of reinforcing benefits; and they are recognized as of immediate benefit. That is to say, the proposed package of cost-free incentives supports the three most important latent factors for all three reserve elements, which in themselves account for a majority of 80 percent of the total variance. It would appear imperative in the self-interest of the reserves that they implement these cost-free incentives as soon as possible in order both to acquire and to retain the enlisted manpower they require.

The formulae results, evaluated with pay raise and budget data available as of 3 March 1972, are presented in Table 1-42, together with associated reenlistment probabilities and gross costs. Detailed computations associated with each incentive are given in Annex B2.

At the request of the Study Advisory Group Table 1-43 was prepared which simply lists annual costs and savings per additional man, as a result of offering each incentive. Probability of reenlistment does not enter into the calculation as the man is assumed to have reenlisted. This calculation is made by adding average yearly pay per man to the gross cost per man of the incentive, and subtracting REP training cost and 6 months' additional pay received while on ADT. The basic cost factors employed are the same as those employed in developing Table 1-42 (see Annex B2).

At this point it is appropriate to refer to Appendix C, which describes the dynamic model programmed on the RAC CDC 6400 computer. This model is used to simulate the effect of instituting alternative incentive programs upon the enlisted manpower composition and cost of the RC of the future. Use of the model allows for variations in the inputs used in developing Table 1-42 (e.g., reenlistment probabilities, manpower pool, mandated strengths). Results are reported in detail in App C, as a part of Phase III of the study.

COST EFFECTIVENESS

The cost effectiveness index employed is defined as the anticipated number of enlisted men per dollar of the entire mandated force, were the particular incentive or set of incentives implemented. This latter index is simply the inverse of the particular net cost formula previously developed, after it has been added to the base cost per man without incentives, C_0/M , where M is again the number of enlisted men in the mandated force. Thus

$$\epsilon_1' \propto [C_0/M + \Delta c_1]^{-1}$$

If this formula is normalized so that ϵ_0' -- the effectiveness without any incentives--equals one, then

Table 1-42
GROSS AND NET COSTS

Incentive number	ARNG			USAR		
	p_i	$\frac{C_i}{M}$	Δc_i	p_i	$\frac{C_i}{M}$	Δc_i
D1	0.43	\$482.00	\$430.40	0.35	\$460.00	\$417.73
D2	0.32	27.76	6.08	0.25	22.00	5.45
D3	0.32	50.00	28.32	0.23	50.00	36.76
D4	0.32	9.25	12.43	0.28	8.22	-13.29
D5	0.27	0.00	-13.34	0.23	0.00	-13.24
D6	0.41	0.00	-36.70	0.33	0.00	-29.79
D7	0.50	208.00	156.29	0.42	208.00	163.32
D8	0.45	30.00	-13.37	0.40	30.00	-11.37
D9	0.34	10.00	-15.02	0.30	10.00	-14.82
D10	0.48	240.00	191.63	0.42	240.00	195.32
D12	0.64	690.00	614.94	0.56	668.00	600.15
E17	0.56	0.00	-61.72	0.50	0.00	-57.92
E18	0.70	690.00	604.93	0.64	668.00	586.91

NOTE: p_i = Incentive probability

$\frac{C_i}{M}$ = Total gross cost per enlisted man of i th incentive

Δc_i = Net cost per enlisted man of the incentives

Table 1-43
SAVING PER REENLISTEE^a

Incentive number	Pay per man	+ Incentive	- Training	= Savings
		ARNG costs		
D1	\$963	\$482	\$2886	\$1441
D2		28		1895
D3		50		1873
D4		9		1914
D5		0		1923
D6		0		1923
D7		208		1715
D8		30		1893
D9		10		1913
D10		240		1683
D12		{ 482 208		1233
E17		0		1923
E18	963	{ 482 208	\$2886	1233
		USAR Costs		
D1	\$919	\$460	\$2799	\$1420
D2		22		1858
D3		50		1830
D4		8		1872
D5		0		1880
D6		0		1880
D7		208		1672
D8		30		1850
D9		10		1890
D10		240		1640
D12	919	{ 460 208	2799	1212

^aAs opposed to replacement by a NPS enlistment.

Table 1-43 (continued)

Incentive number	Pay per man	+ Incentive	- Training	= Savings
E17	\$919	\$ 0	\$2799	\$1880
E18	919	{ 460 208	2799	1220

$$\left(\text{Average pay} + \frac{C_1}{M} \right) - \text{Training cost}$$

where:

Average pay = \$963.00 for ARNG
 = \$919.00 for USAR

$\frac{C_1}{M}$ = Total gross cost per enlisted man of 1th incentive
 (see Table 1-31)

Basic training cost = \$2886 for ARNG
 = \$2799 for USAR

of 0.05 to 0.10. Thus the break-even point is approximately \$15, evaluating the coefficient of Eq 2. This result means that no reenlistment incentive should be considered for inclusion if its total gross cost per man is nearly equal to or greater than \$15. Thus the only reenlistment economic incentives which should even be considered for implementation on this basis are numbers D2, D4, D5, D6, D8, and D9. D9 is marginal; but D1, D7, D10, D12, and E18 should be excluded from a package of, say, three or more incentives.

Care should be taken to note that these incentives have been evaluated for reenlistment only. The full mandated force demands a continual supply of REPs in any strategy. These latter men may well have entirely different reactions to incentives directed primarily to reenlistment. Thus, although increased pay and/or bonuses are not cost effective for reenlistment, they may be necessary to secure enough REPs to reach the total mandated levels required.

It is easy to compute the incremental enlisted force cost per incentive by using the data from Table 1-44. It is only necessary to multiply the incremental costs per man by the total number of enlisted men in the mandated force strength. These figures are presented in Table 1-45. To determine the total enlisted force cost, it is then only necessary to add the base cost, given by multiplying the average cost per man without incentives by the total number of enlistees in the mandated force. This base cost amounts to \$357,867,171 for the ARNG and \$206,729,050 for the USAR.

Table 1-45

INCREMENTAL ENLISTED FORCE COST PER INCENTIVE

Ranking	Incentive number	Net cost	X	Enlisted mandated strength	=	Incremental enlisted men force cost
ARNG						
1	E17	\$- 61.72		371,617		\$- 22,936,201.24
2	D6	- 36.70		↑ ↓		- 13,638,343.90
3	D9	- 15.02			- 5,581,687.34	
4	D8	- 13.37			- 4,968,519.29	
5	D5	- 13.34			- 4,957,370.78	
6	D4	- 12.43			- 4,619,199.31	
7	D2	6.08			2,259,431.36	
8	D3	28.32			10,524,193.44	
9	D7	156.29			58,080,020.93	
10	D10	191.63			71,212,965.71	
11	D1	430.40			159,943,956.80	
12	E18	604.93			224,802,271.81	
13	D12	614.94			371,617	228,522,157.98
USAR						
1	E17	- 57.92		224,950		- 13,029,104.00
2	D6	- 29.79		↑ ↓		- 6,701,260.50
3	D9	- 14.82			- 3,333,759.00	
4	D4	- 13.29			- 2,989,585.50	
5	D5	- 13.24			- 2,978,338.00	
6	D8	- 11.37			- 2,557,681.50	
7	D2	5.45			1,225,977.50	
8	D3	36.76			8,269,162.00	
9	D7	163.32			36,738,834.00	
10	D10	195.32			43,937,234.00	
11	D1	417.73			93,878,383.50	
12	E18	586.91			132,025,404.50	
13	D12	600.15			224,950	135,003,742.50

Chapter 2
INTERRELATIONS OF PROPOSALS (TASK 2)

INCENTIVE INTERACTION

Phase II, Task 2, of the Study Plan¹ stipulates: "Determine the interrelationship between proposals, identifying the impact that the adoption of each proposal or combination of reinforcing proposals would have on the gains and costs associated with each other proposal."¹

The interrelation between proposals per se was not directly addressed by the survey. However certain composite sets of incentives were assessed by three survey questions: D12, E17, and E18. For example, D12 asked the respondent to choose a combination of any two or three questions (one-half the total survey asked for two and the other, three) and to estimate his resultant reenlistment probability. As attested by Fig. 2-1, a wide variety of different packages was selected. Thus there were 125 different sets of two or three incentives chosen by one respondent each, 85 different sets each chosen by two respondents, etc. Of those sets chosen by 10 or more people each, incentive D7 was the most popular, being selected as one member of 23 of the total 31 different such sets of proposals involved. Incentives D1, D8, and D10 were the next most popular, each appearing nine times among the 31 different sets of incentives. The problem becomes, how can one predict the resultant probability of combining two (or three or more) incentive proposals, given individual reenlistment probability of each considered by itself?

If the individual incentives were uncorrelated, that is, statistically independent, the answer to the preceding question would be given by the usual probability addition formula which, in the case of a pair of such probabilities is given by:

$$p(x \cup y) = p(x) + p(y) - p(x)p(y). \quad (3)$$

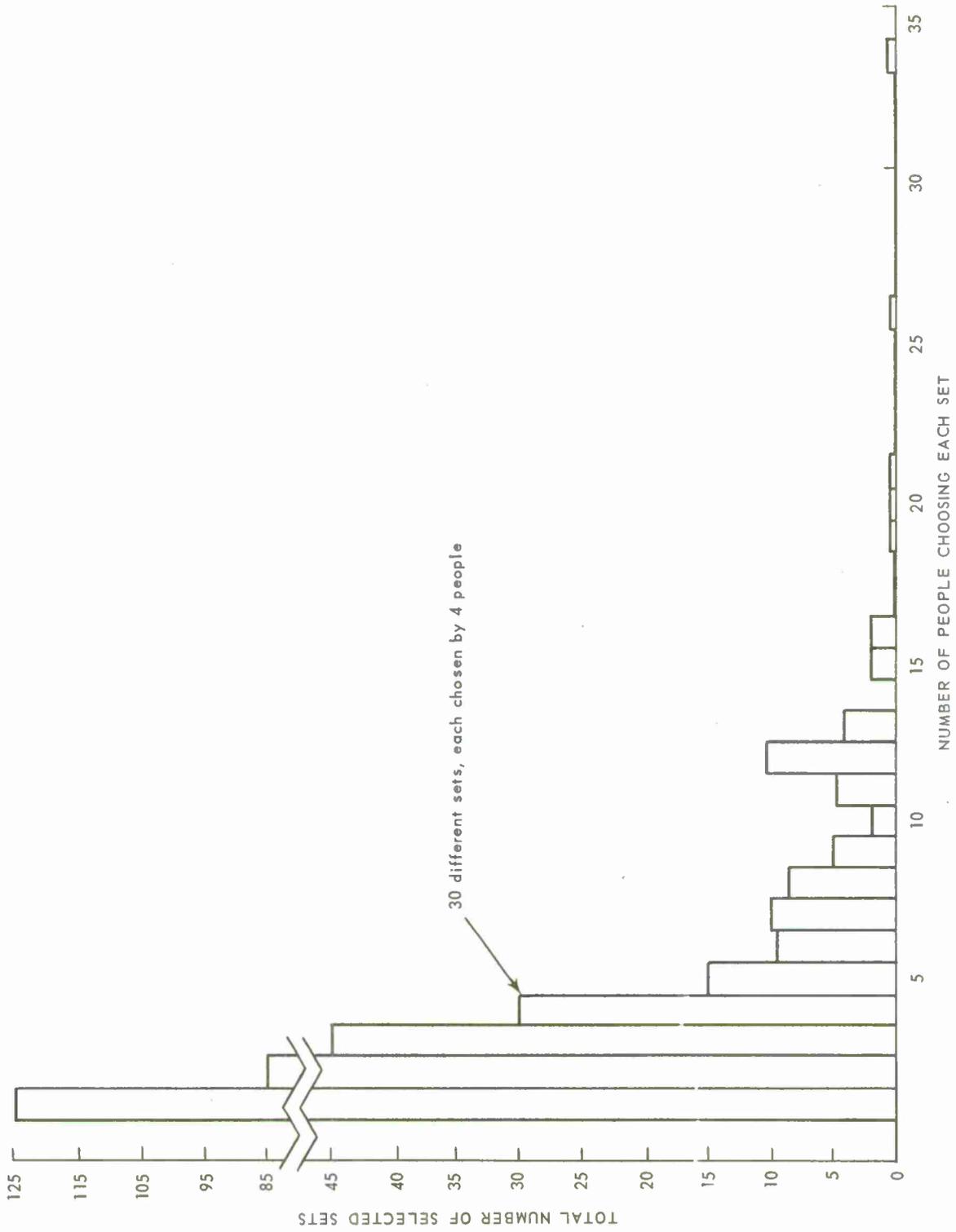


Fig. 2-1—Frequency of Different Multiple Choice Responses to Question D12



However, if the separate probabilities are not statistically independent, the last term of Eq 3 must be replaced by the product of the probability of one incentive multiplied by the conditional probability of the other. We must therefore ask first if the individual incentives are correlated.

Tables 2-1, 2-2, and 2-3 give the correlation coefficients computed for the set of 11 economic (D1 through D10 and D12) and two other (E17 and E18) incentives. Applying the conventional statistical test,⁸⁹ the individual correlation coefficients are all greater than 0.128, which represents the 1 percent level of significance with 400 degrees of freedom (roughly 400 pairs of responses). The incentives thus are all correlated pairwise at a confidence level of greater than 99 percent. Therefore, Eq 3 cannot be used for combining the incentives.

The correlation coefficients tables are of other interest as well to the problem of incentive interrelation. For example, inspection will verify that the highest correlation (~ 0.8) for composite question E18 is with E17 and D12, as it should be since it is composed of these two (composite) incentives. Similarly, composite incentive D12 for the ARNG has its highest correlation (~ 0.7) with individual incentives D1, D6, D7, D8, and D10. These latter are the same individual incentives which appear most frequently in the sets of combined incentives each chosen by 10 different people in the most popular combinations of the histogram of Fig. 2-1. And of those five, D7--which was the most popular single incentive--has the highest correlation with D12, as would be expected. Finally, questions D1 and D2 are found to be closely correlated (~ 0.77), as again would be anticipated since D1 represents a pay raise and D2 a bonus. However this discussion is a digression from the problem of defining a composite incentive probability formula.

Some other-than-economic incentives possibly could be disincentives for persons especially interested in the economic incentives, and in the more "military" aspect of RC service. For example, highly military-oriented individuals might object to domestic service in the community or to relaxation of grooming standards in units on grounds of not appropriately satisfying military duty requirements. If this were the case, it would in a sense reduce the probability of reenlistment for some of the economic incentives; such a case is not taken into account in any of the probability combinations.

Table 2-1

ARNG

CORRELATION COEFFICIENT MATRIX

	01	02	03	04	05	06	07	08	09	010	012	E17	E18
01	1.0000	.7722	.6737	.6898	.6600	.7300	.7350	.6689	.6809	.7261	.7322	.7071	.6286
02	.7722	1.0000	.7191	.6701	.6769	.7045	.6733	.6144	.6747	.6246	.5946	.6072	.5168
03	.6737	.7191	1.0000	.7169	.7741	.7101	.6975	.6610	.6900	.6526	.5615	.5593	.4613
04	.6898	.6701	.7169	1.0000	.7288	.7031	.7357	.6749	.6929	.6842	.5996	.5929	.5006
05	.6600	.6769	.7741	.7288	1.0000	.7824	.7238	.7127	.7654	.6926	.5421	.5660	.4675
06	.7300	.7045	.7101	.7031	.7824	1.0000	.8044	.6952	.7161	.7481	.6666	.6417	.5608
07	.7350	.6733	.6975	.7357	.7238	.8044	1.0000	.8353	.7118	.8229	.7527	.6474	.6204
08	.6689	.6144	.6610	.6749	.7127	.6952	.8353	1.0000	.7426	.8128	.7140	.6121	.5969
09	.6809	.6747	.6500	.6929	.7654	.7161	.7118	.7426	1.0000	.7530	.6060	.6241	.5250
010	.7261	.6246	.6526	.6942	.6926	.7481	.8229	.8128	.7530	1.0000	.7308	.6431	.5996
012	.7322	.5946	.5615	.5996	.5421	.6666	.7527	.7140	.6060	.7308	1.0000	.7097	.8263
E17	.7071	.6072	.5593	.5929	.5660	.6417	.6474	.6121	.6241	.6431	.7097	1.0000	.8318
E18	.6286	.5168	.4613	.5006	.4575	.5608	.6204	.5969	.5290	.5996	.8263	.8318	1.0000

Table 2-2

USAR

CORRELATION COEFFICIENT MATRIX

	01	02	03	04	05	06	07	08	09	010	012	E17	E18
01	1.0000	.7800	.6805	.6963	.6696	.7266	.7040	.5826	.6670	.7223	.7195	.5727	.5911
02	.7800	1.0000	.7097	.7499	.7346	.7493	.6368	.5937	.7092	.7010	.6087	.5379	.5072
03	.6805	.7097	1.0000	.6751	.7385	.6774	.6301	.5847	.6962	.6670	.5568	.4813	.4523
04	.6963	.7499	.6751	1.0000	.7665	.7867	.7116	.6723	.7111	.7012	.6233	.5787	.5185
05	.6696	.7346	.7385	.7665	1.0000	.8225	.7058	.6546	.7080	.6662	.5476	.5329	.4380
06	.7266	.7493	.6774	.7867	.8225	1.0000	.7993	.6964	.7459	.7578	.6587	.5770	.5301
07	.7040	.6368	.6301	.7116	.7058	.7993	1.0000	.7880	.7132	.8212	.7531	.5915	.5863
08	.5826	.5937	.5847	.6723	.6546	.6964	.7880	1.0000	.6990	.7654	.6742	.5183	.5060
09	.6670	.7092	.6962	.7111	.7080	.7459	.7132	.6990	1.0000	.8022	.6360	.5847	.5308
010	.7223	.7010	.6670	.7012	.6662	.7578	.8212	.7654	.8022	1.0000	.7332	.6103	.5958
012	.7195	.6087	.5568	.6233	.5476	.6587	.7531	.6742	.6360	.7332	1.0000	.6609	.8333
E17	.5727	.5379	.4813	.5787	.5329	.5770	.5915	.5183	.5847	.6103	.6608	1.0000	.7966
E18	.5911	.5072	.4523	.5185	.4380	.5301	.5863	.5060	.5308	.5958	.8333	.7966	1.0000





Table 2-3

IRR

CORRELATION COEFFICIENT MATRIX

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D12	E17	E18
D1	1.0000	.8218	.7782	.7268	.6971	.7288	.7033	.6991	.7128	.6923	.6882	.6760	.6531
D2	.8218	1.0000	.8280	.7217	.7594	.7504	.7364	.6929	.7344	.7291	.6759	.6705	.6382
D3	.7782	.8280	1.0000	.7506	.8044	.7790	.7421	.7799	.7966	.7555	.6881	.6951	.6443
D4	.7268	.7217	.7506	1.0000	.7564	.7727	.7600	.7072	.7747	.7374	.7209	.6889	.6587
D5	.6971	.7594	.8044	.7564	1.0000	.8308	.7756	.7816	.8043	.8034	.6401	.6511	.5857
D6	.7288	.7504	.7790	.7727	.8308	1.0000	.8555	.8014	.8155	.8436	.7451	.7368	.6959
D7	.7033	.7364	.7421	.7600	.7756	.8555	1.0000	.7890	.7746	.8702	.7609	.7445	.7082
D8	.6991	.6929	.7799	.7072	.7816	.8014	.7890	1.0000	.8025	.8308	.7084	.7010	.6473
D9	.7128	.7344	.7966	.7747	.8043	.8155	.7746	.8025	1.0000	.7932	.7072	.7082	.6457
D10	.6923	.7291	.7555	.7374	.8034	.8436	.8702	.8308	.7932	1.0000	.7563	.7141	.6904
D12	.6882	.6759	.6881	.7209	.6401	.7451	.7609	.7084	.7072	.7563	1.0000	.8228	.8880
E17	.6760	.6705	.6951	.6889	.6511	.7368	.7445	.7010	.7082	.7141	.8228	1.0000	.9078
E18	.6531	.6382	.6443	.6587	.5897	.6959	.7082	.6473	.6497	.6904	.8880	.9078	1.0000

20

The formula needed--in the case that both $p(x)$ and $p(y)$ are greater than p_0 , the reenlistment probability without incentive--should meet the following boundary conditions:

- If $p(x)$ or $p(y) = 1$, $p(x \cup y) = 1$
- If $p(x) = p(y) = p_0$, $p(x \cup y) = p_0$
- If $p(x) = p_0$, $p(x \cup y) = p(y)$
- If $p(y) = p_0$, $p(x \cup y) = p(x)$
- If $p(x) \geq p(y)$, $p(x \cup y) \geq p(x)$
- If $p(y) \geq p(x)$, $p(x \cup y) \geq p(y)$
- and $1 \geq p(x \cup y) \geq p_0$.

Furthermore, to permit more than two incentives to be combined into a set with a resultant probability $p_{i,j,k} \dots$, it is necessary that the resultant formula, when applied repeatedly, must be independent of the order in which the incentives are added; that is to say, the indices must be commutative.

With corresponding boundary conditions for the other two possible cases-- $p(x \text{ or } y) \geq p_0 \geq p(y \text{ or } x)$ and $p(x), p(y) \leq p_0$ --inspection will demonstrate the following formula meets all requirements:

$$p(x \cup y) = p_x + p_y - p_0 \quad \left\{ \begin{array}{l} - \frac{(p_x - p_0)(p_y - p_0)}{1 - p_0}, p_x, p_y \geq p_0 \\ + 0, p_x \geq p_0 \geq p_y \text{ or } p_y \geq p_0 \geq p_x \quad (4) \\ + \frac{(p_0 - p_x)(p_0 - p_y)}{p_0}, p_x, p_y \leq p_0 \end{array} \right.$$

where subscripts were used rather than parentheses for $p(x)$ and $p(y)$.

A derivation of Eq 4 is presented in Annex B3, which assumes

$\frac{(p_x - p_0)}{1 - p_0}$ and $\frac{(p_y - p_0)}{1 - p_0}$ are such that in the interval, $p_0 \leq p_i \leq 1$,

their joint probability may be represented by $\frac{(p_x - p_0)(p_y - p_0)}{(1 - p_0)^2}$.

(To the extent that assumption is not justified, Eq 4 will give upper-bound estimates of the actual combined incentive probability.) Commutivity of the indices for three or more combined incentives is proved in Annex B3.

When Eq 4 is applied to the ARNG composite question D12 (assuming D12 is composed primarily of D1 and D7), the predicted composite probability is identically equal to the survey response (0.64). With USAR data, D12 is the same (0.56) but the predicted E18 is 0.74 vs 0.64 actual. The match is far worse in the case of the IRR data (e.g., 0.55 predicted vs 0.42 actual), but the data for the IRR are inconsistent (for example, the same probability results for D7 and D12 which latter presumably includes D7), and the survey is questionably appropriate in design for the IRR as well. Comparison with several other pairs and triplet incentive sets identified from survey question D12 shows that in most instances the predicted combination probability lies within the (necessarily) small-sample 95 percent confidence limits of the experimental values.

The alternative to Eq 4 would be to resurvey for selected sets of incentives, and then to determine their actual experimental interaction. It is believed, however, that use of the proposed Eq 4 is justified as an adequate approximation in most cases.

Insofar as costs are concerned for sets of combined incentives, the solution is simple, once the effective combined reenlistment probability p_{i+j} , is determined. Given the latter, the net cost equation becomes

$$\Delta C_{i+j} = \frac{C_i + C_j}{M} - \frac{fRT}{M} \left[\frac{p_{i+j} - p_0}{p_0} \right] \quad (5)$$

As an example of the use of these formulae to determine interaction among a hypothetical set of incentives, consider a hypothetical package of incentives numbers E17, D6, D5, and D9. Let us take the data for the ARNG, and assume the composition Eq 4 is valid.

First we join D17 and D6. By Eq 4,

$$p_{17,6} = 0.56 + 0.41 - 0.19 - \frac{(0.37)(0.22)}{0.81} = 0.68.$$

$$\Delta C_{17,6} = 0 - \$166.80 [0.68 - 0.19] = \underline{\underline{\$(-)81.73}}.$$

Now add D5:

$$p_{17,6,5} = 0.68 + 0.27 - 0.19 - \frac{(0.49)(0.08)}{0.81} = \underline{\underline{0.71}}.$$

$$\Delta C_{17,6,5} = 0 - \$166.80 [0.71 - 0.19] = \underline{\underline{\$(-)86.74}}.$$

Finally, we add incentive D9:

$$p_{17,6,5,9} = 0.71 + 0.34 - 0.19 - \frac{(0.52)(0.15)}{0.81} = \underline{\underline{0.76}} .$$

$$\Delta C_{17,6,5,9} = \$10.00 - \$166.80 [0.76 - 0.19] = \$(-)\underline{\underline{85.08}} .$$

Adding the last incentive, D9, actually increases the net cost, and so it would be preferable to include only the first three incentives (E17, D6, and D5) in the package of combined probabilities.

The example is illuminating in several other ways. First, note the combined gross cost of all four incentives together, \$10.00, is near the predicted break-even point of approximately \$15.00, reflecting once again the inadvisability of adding the last, or D9, incentive to the previous three. Second, and perhaps more important, it shows how diminishing returns set in, both in terms of actual costs and in the resultant combined reenlistment probability, as more and more incentives are added. There is thus little to be gained by combining more than the three best separate incentives.

Since the multiple combination probability formula is commutative, and the cost elements are themselves linear, the resultant cost effectiveness indices for combined incentives are also independent of the order in which the incentives are joined.

In any cost effectiveness evaluation, it is important to understand the sensitivity of the equations to variations of key parameters. For present purposes, it is most important to understand the sensitivity to variations in the reenlistment probabilities, p_i , associated with the individual and composite incentives.

Using the Student t distribution, the 95 percent confidence intervals for the various individual reenlistment probabilities--neglecting correlations--yield an uncertainty interval of approximately $\pm .03$. Thus p_1 is $0.43 \pm .033$, p_5 is $0.27 \pm .029$, p_7 is $0.50 \pm .034$, p_{12} is $0.64 \pm .032$, etc., for the ARNG. The question of sensitivity thus becomes: what is the effect of such uncertainty levels on the cost and cost effectiveness formulae?

Differentiating the incremental cost formula gives the needed sensitivity formula:

$$\frac{d(\Delta C_i)}{dp_i} = \frac{1}{M} \frac{dC_i}{dp_i} - \frac{fRT}{p_o M} \quad (6)$$

Typically, a 0.03 change in p_i is reflected by a change in Δc_i on the order of \$3 to \$5. Although such a change could affect the cost effectiveness ordering of those Δc_i 's differing by less than \$5, for the most part greater differences exist among the actual Δc_i 's, and hence the 95 percent confidence level range of possible reenlistment probabilities should not appreciably affect the cost effectiveness rank ordering given by Table 1-32.

Chapter 3
RECOMMENDATIONS FOR ADDITIONAL TESTS (TASK 3)

As required in the Work Statement for Phase III¹ the scope of additional tests required to evaluate the effectiveness of proposals which cannot be shown to be cost effective with available data has been defined.

Effects of the Pay Raise

Determine the effects of the pay raise in terms of attracting various categories of accessions into the RC.

Effects of Enlistment Options

Determine the effects of the enlistment options in terms of attracting various categories of accessions into the RC.

Recruitment of WAC

Determine the effects of the WAC recruitment program in terms of progress toward goals and quality of enlistments.

Effects of the Recruiting and Advertising Campaign

Determine and compare the effectiveness of the recruiting program with that of advertising campaign in securing enlistments/reenlistments in the RC.

Proficiency Pay

Determine the effects of proficiency pay in retaining selected members—by skill area—of the RC.

Reenlistment Bonus

Determine the effects of the reenlistment bonus in retaining members in the RC.

Retention of IRR Members

Develop and test the effectiveness of incentives in retaining members in the IRR.

Reserve Component Personnel Management System

Design, develop, and implement a computerized management system which allows for input and retrieval, as needed or periodically, of manpower and personnel data important to policymakers. Specific mention has been made of the lack of such necessary data as waiting list strength and composition, NPS and PS ETSSs, terms of reenlistment, and reliable and comparable reenlistment rates. Research was further hindered by a lack of uniformity among the RC of all the Services and even between the ARNG and the USAR in definitions of terms, and statistical bases.

VIOLAR-Type Experiment

Allocate additional resources to selected RC units with a view to improving recruiting activities, facilities, training, and reserve military life style. Establish controls so that improvements in attracting and retaining qualified personnel, and in improving unit effectiveness, can be measured.

Decentralized Responsibility

Allow certain units great latitude in setting their own goals, programs, and policies. Establish controls so that improvements in recruiting, retention, and unit effectiveness can be measured.

Readiness

Establish a program to measure unit readiness periodically, taking into account the changes in personnel, equipment, training, facilities which are being made.

Information Program

Establish a comprehensive RC information program which is aimed internally at various target groups—ARNG unit, USAR unit, IRR—and externally at the community, selected organizations (e.g., National Guard Association, American Legion, Veterans of Foreign Wars), employees, unions, and the like. The objective would be to enhance the image of the RC and to seek support in attaining RC objectives of attracting and retaining quality personnel and of achieving a high level of readiness.

Longitudinal Study of Personnel

Determine the degree of validity of attitudinal data that respondents have furnished by way of the RAC mail survey. Actual performance of a sample of respondents will be compared to their previous indication of intent on the survey. The result should allow for more precise predictions of behavior than is normally possible.

Comparative Study of Incentives Offered to Guardsmen by Various States

Determine and compare the kinds of incentives now offered, by state, to state ARNG personnel. Where monetary incentives are used—as for example in Alaska, for reenlistment—measure the effects of these incentives in accomplishing their objectives. Investigate the feasibility of offering further options to RC members, based on the above.

Research and Development Study of Latent Attitudinal Factors

Study the latent psychological factors which underlie the response of prospective enlistees and reenlistees to various proposed incentives. The techniques of modern factor analysis will be employed, with particular emphasis given to identification and confirmation of the underlying factors.

Advanced Planning Group

Establish an advance planning group, within the CORC plans structure, whose mission would be to set mid- and long-range goals and objectives in consonance with RC mission, and to establish a broad plan and program to achieve these objectives.

Single Incentive Reenlistment Potential

Query a sample of respondents as to their reenlistment intentions and the probability of reenlistment when offered a single, specified incentive. Compare the results with those of previous surveys in which multiple choice or a package of incentives were offered.

Annex B1

RAC SURVEYS

1. Sixth-Year Personnel
2. First-Year Personnel
3. Active Army Personnel

Annex B1

Research Analysis Corporation

McLean, Virginia 22101



Area Code 703
893-5900

1. Sixth Year-Personnel

November 1971

MEMORANDUM FOR: Certain Members of the Reserve Components
of the US Army

SUBJECT: Survey of Reserve Components Personnel

The Research Analysis Corporation is an independent, non-profit organization that conducts research studies, under contract, for various departments of the Federal, state and local governments. The attached survey is a part of the study, "Maintenance of Reserve Components in a Volunteer Environment," sponsored by the Chief of the Office of Reserve Components, Department of Army. It deals with how the Guard and Reserve forces of the Army can be made most attractive to persons like yourself, assuming that participation in the Guard and Reserves were completely voluntary — that there were no military draft.

You have been randomly selected to participate in the survey. The information requested from you is not available from other sources. Your opinions on this matter will have considerable influence in determining what actions should be taken in the Reserve Components. Your responses will be treated anonymously in the statistical analysis.

It probably will take about thirty minutes to complete the survey. Please fill it out and return it as soon as you can. Thank you for your cooperation.

Wallace L. Clement
Wallace L. Clement
Study Leader

Enclosure

1979

Research Analysis Corporation



McLean, Virginia 22101

RESERVE COMPONENTS SURVEY

INSTRUCTIONS

This is a survey dealing with your attitudes about the Reserve Components of the Army (the Guard and the Reserves). *Please complete it as soon as you can.* Your cooperation is important.

As you may have heard in news accounts, there is a good possibility that the military draft will not extend beyond July 1973. After that time, so long as there is no significant threat, it is proposed that the United States military forces will be recruited from volunteers. In an all-volunteer environment it may be necessary to make changes in the military services so that the services are more attractive to prospective members. While it may be necessary to make the active military service more attractive, it also may be necessary to make changes in the *National Guard* and the *Reserves* so that sufficient numbers of persons will be attracted to military reserve forces.

The purpose of this survey is to secure the opinions of personnel now in the Guard or Reserves as to how the Reserve Components might be improved. You will be questioned as to your preferences toward different incentives and combinations of incentives that would increase the probability of your reenlistment in the Guard or Reserves upon termination of your current obligated tour. The survey will also ask questions about your initial enlistment.

The survey is being mailed to about 5000 persons in the Reserve Components of the Army. Your name was selected randomly according to a computer program. The number at the top of the page is to assist in keeping track of the forms as they are returned. Your answers will be treated anonymously in the statistical analysis which will be conducted by this organization; in no way will your name be associated with your responses. Please be honest and candid in completing the form.

For most of the survey you will answer questions by circling the appropriate response for the question. At some points in the completion of the survey you are asked to write in ideas you might have that are not included in the alternatives listed.

When you have completed the survey, place it in the enclosed stamped, addressed envelope and mail without delay.

November 1971

B1-2

A. BACKGROUND INFORMATION (please circle appropriate item)

1. Grade: E1 E2 E3 E4 E5 E6 E7 E8 E9
2. Length of time actually in the Army during present enlistment [not including annual (active duty) training]:
(1) Less than 6 months (2) 6 to 12 months (3) About 2 years (4) About 3 years (5) About 4 years
3. Months spent in military service schools during present enlistment (not to include Reserve Component schools): _____
4. MOS for which you were trained (first 3 digits only): _____
5. MOS in which you are now working: _____
6. Now in:
(1) Army National Guard unit that meets for paid assemblies on a regular basis
(2) USAR unit that meets for paid assemblies on a regular basis
(3) Individual Ready Reserve (IRR)—not assigned to a Guard or Reserve unit that has regular assemblies for pay
7. Age: 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
34 or older
8. Present civilian education level:
(1) Grade school (4) Some college
(2) Some high school (5) College graduate
(3) High school graduate (6) Postgraduate study
9. Number of training assemblies you received credit for during the period 1 December 1970 to 30 November 1971 (a weekend Multiple Unit Training Assembly—4, as an example, would be considered as 4 training assemblies):
(1) Number of training assemblies for pay _____. (2) Number of training assemblies not for pay _____.
10. Days of Active Duty training in past 3 years: _____ days.
11. Marital status:
(1) Single (2) Married (3) Separated/divorced (4) Widowed
12. Number of children: _____
13. Civilian occupation: _____
14. Present employment status:
(1) Self-employed (4) Full-time student not working full time
(2) Employed by Federal, State, County or local government (5) Working part time (not a full-time student)
(3) Employed by a private firm (6) Unemployed (not a full-time student)
15. Are you a Federal civilian employee assigned as a technician to the Guard or Reserve?
(1) Yes (2) No
16. Your present annual income, excluding your military pay:
(1) Less than \$4000 (5) \$10,000 to \$11,999 (9) \$18,000 to \$19,999
(2) \$4000 to \$5999 (6) \$12,000 to \$13,999 (10) \$20,000 to \$21,999
(3) \$6000 to \$7999 (7) \$14,000 to \$15,999 (11) \$22,000 to \$23,999
(4) \$8000 to \$9999 (8) \$16,000 to \$17,999 (12) \$24,000 or more
17. What is your best estimate of the annual monetary value of all your pay and benefits from your Guard or Reserve Service?
(1) Less than \$500 (5) \$1100 to \$1299 (9) \$1900 to \$2099
(2) \$500 to \$699 (6) \$1300 to \$1499 (10) More than \$2100
(3) \$700 to \$899 (7) \$1500 to \$1699
(4) \$900 to \$1099 (8) \$1700 to \$1899

18. Your present family income from all sources (you and your spouse combined):

- | | | |
|--------------------------|---------------------------|---------------------------|
| (1) Less than \$4000 | (6) \$12,000 to \$13,999 | (11) \$22,000 to \$23,999 |
| (2) \$4000 to \$5999 | (7) \$14,000 to \$15,999 | (12) \$24,000 to \$25,999 |
| (3) \$6000 to \$7999 | (8) \$16,000 to \$17,999 | (13) \$26,000 to \$27,999 |
| (4) \$8000 to \$9999 | (9) \$18,000 to \$19,999 | (14) \$28,000 or more |
| (5) \$10,000 to \$11,999 | (10) \$20,000 to \$21,999 | |

19. Religious preference:

- (1) Jewish (2) Protestant (3) Roman Catholic (4) None (5) Other

20. Race:

- (1) American Indian (2) Caucasian (3) Negroid (4) Oriental (5) Other

21. Type of community in which you grew up:

- (1) Farm (2) Small town (3) Suburb (4) City

22. In what State (district, territory, or possession)? _____

23. Type of community in which you now live:

- (1) Farm (2) Small town (3) Suburb (4) City

24. Present residence: _____ STATE COUNTY CITY

**B. RESERVE COMPONENT SERVICE—
SATISFACTION AND IMPORTANCE RATINGS**

There are two things to do in this part of the survey:

- (a) Indicate your level of satisfaction with each of the various topics stated.
(b) Rank the topics in terms of their importance to you.

SATISFACTION RATING. First, then, you are asked to express your satisfaction by drawing a circle around what you feel to be the appropriate number on the dotted line under each question. As you see, one end of the scale indicates satisfaction; the other end of the scale indicates dissatisfaction. You may choose any of the numbers, 1 through 7, to express the degree of satisfaction you feel. Do this for each of the nine items before you rank them in importance.

____ 1. How satisfying do you find your Guard or Reserve duty with respect to your assigned duties, and the freedom you have to carry them out?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

____ 2. How satisfying do you find your friendships and your personal associations with others in your unit, both occupational and personal contacts—do you look forward to these associations during drill period and find them worthwhile to you?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

____ 3. How satisfying do you find the economic benefits associated with the Guard and Reserve—benefits in the way of pay and retirement credit you have as a consequence of membership in the Guard of Reserve?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying



5. What was the one, primary reason for your initial entry into the Guard of Reserve? (Circle appropriate item)

- | | |
|---|--|
| (1) Involuntarily assigned from active forces | (7) Friends were in the Guard or Reserve |
| (2) To learn a trade or skill that would be valuable in civilian life | (8) Supplement my income by drill and training pay |
| (3) Went into the Reserve Components rather than be drafted | (9) Retirement benefits |
| (4) To serve my country | (10) For the travel, excitement, new experience |
| (5) To fulfill my military obligation at a time of my choice | (11) To become more mature and self-reliant |
| (6) Opportunity for advanced education, professional training | (12) Other than above _____ |
| | _____ |
| | _____ |

6. Would you encourage your friends and relatives who had not had military service and who do not have a service obligation to join the Guard or Reserve?

- | | |
|--------------------------|----------------------|
| (1) Definitely would not | (4) Probably would |
| (2) Probably would not | (5) Definitely would |
| (3) Not sure | |

7. What do you think might be the best ways to recruit persons into the Guard and Reserve?

- (1) _____

- (2) _____

- (3) _____

8. You have been asked a lot of questions about your attitude toward the Guard and Reserve. Now, one final question: Are you going to reenlist in the Reserve Components for at least a year?

- | | |
|----------------------------------|------------------------------|
| (1) Definitely will not reenlist | (4) Probably will reenlist |
| (2) Probably will not reenlist | (5) Definitely will reenlist |
| (3) Not sure | |

This is the end of the survey. Thank you for your participation. Please return the survey immediately in the enclosed envelope. The postage has already been paid; just seal and mail.

*If you have any additional comment,
please write it below.*

ADDITIONAL COMMENT:

Research Analysis Corporation

McLean, Virginia 22101



Area Code 703
893-5900

2. First-Year Personnel

January 1972

MEMORANDUM FOR: Certain Members of the Reserve Components of the
US Army Who Have Not Had Active Duty Training

SUBJECT: Survey of Reserve Components Personnel

The Research Analysis Corporation is an independent, non-profit organization that conducts research studies, under contract, for various departments of the Federal, state and local governments. The attached survey is a part of the study, "Maintenance of Reserve Components in a Volunteer Environment," sponsored by the Chief of the Office of Reserve Components, Department of Army. It deals with how the Guard and Reserve forces of the Army can be made most attractive to persons like yourself, assuming that participation in the Guard and Reserve were completely voluntary — that there were no military draft.

You have been randomly selected to participate in the survey from those personnel in Guard and Reserve units who have not yet been called for active duty training. (If you should have been called by the time you receive this, please complete the survey anyway.) The information requested from you is not available from other sources. Your opinions on this matter may have considerable influence in determining what actions should be taken in the Reserve Components. Your responses will be treated anonymously in the statistical analysis.

It probably will take about thirty minutes to complete the survey. Please fill it out and return it as soon as you can. Thank you for your cooperation.

Wallace L. Clement
Study Leader

Enclosure

Research Analysis Corporation



McLean, Virginia 22101

RESERVE COMPONENTS SURVEY—NPS PERSONNEL

INSTRUCTIONS

This is a survey dealing with your attitudes about the Reserve Components of the Army (the Guard and the Reserve). *Please complete it as soon as you can.* Your cooperation is important.

As you may have heard in news accounts, there is a good possibility that the military draft will not extend beyond July 1973. After that time, so long as there is no significant threat, it is proposed that the United States military forces will be recruited from volunteers. In an all-volunteer environment it may be necessary to make changes in the military services so that the services are more attractive to prospective members. While it may be necessary to make the *active* military service more attractive, it also may be necessary to make changes in the *National Guard* and the *Reserve* so that sufficient numbers of persons will be attracted to military reserve forces.

The purpose of this survey is to secure the opinions of new personnel in the Guard or Reserve as to how the Reserve Components might be made more attractive to non-prior service personnel. You will be questioned as to your preferences toward different incentives and combinations of incentives that would have increased the probability of your enlistment in the Guard or Reserve.

The survey is being mailed to about 1000 persons who have recently joined Guard or Reserve units. Your name was selected randomly according to a computer program. The number at the top of the page is to assist in keeping track of the forms as they are returned. Your answers will be treated anonymously in the statistical analysis which will be conducted by this organization; in no way will your name be associated with your responses. Please be honest and candid in completing the form.

For most of the survey you will answer questions by circling the appropriate response for the question. At some points in the completion of the survey you are asked to write in ideas you might have that are not included in the alternatives listed.

When you have completed the survey, place it in the enclosed stamped, addressed envelope and mail without delay.

December 1971



A. BACKGROUND INFORMATION (please circle appropriate item)

1. Grade: E1 E2 E3 E4 or higher

2. Months of service in the Guard or Reserve:

- | | |
|----------------|-------------------------|
| (1) 0-2 months | (5) 9-10 months |
| (2) 3-4 months | (6) 11-12 months |
| (3) 5-6 months | (7) 13-18 months |
| (4) 7-8 months | (8) 19 months or longer |

3. Months on a waiting list prior to enlistment in the Guard or Reserve:

- | | |
|----------------|-------------------------|
| (1) 0-2 months | (5) 9-10 months |
| (2) 3-4 months | (6) 11-12 months |
| (3) 5-6 months | (7) 13-18 months |
| (4) 7-8 months | (8) 19 months or longer |

4. MOS in which you are now working (first 3 digits only): _____

5. Now in:

- | |
|--|
| (1) Army National Guard unit that meets for paid assemblies on a regular basis |
| (2) USAR unit that meets for paid assemblies on a regular basis |

6. Age: 18 19 20 21 22 23 24 25 26 27 or older

7. Present civilian education level:

- | | |
|--------------------------|-------------------------|
| (1) Grade school | (4) Some college |
| (2) Some high school | (5) College graduate |
| (3) High school graduate | (6) Post graduate study |

8. Are you now in school?

- | | |
|----------------------|-----------------------------|
| (1) Yes, high school | (3) Yes, postgraduate study |
| (2) Yes, college | (4) No |

9. If now in school, what do you hope to do when you finish? _____

10. Number of training assemblies you received credit for during the period 1 December 1970 to 30 November 1971 (a weekend Multiple Unit Training Assembly—4, as an example, would be considered as 4 training assemblies):

- | |
|--|
| (1) Number of training assemblies for pay: _____ |
| (2) Number of training assemblies not for pay: _____ |

11. Marital Status:

- | | |
|-------------|------------------------|
| (1) Single | (3) Separated/Divorced |
| (2) Married | (4) Widowed |

12. Number of children: _____

13. Civilian occupation: _____

14. Present employment status:

- | | |
|--|---|
| (1) Self-employed | (4) Full-time student not working full time |
| (2) Employed by Federal, State, County or local government | (5) Working part time (not a full-time student) |
| (3) Employed by a private firm | (6) Unemployed (not a full-time student) |

15. Are you a Federal civilian employee assigned as a technician to the Guard or Reserve?

- | | |
|---------|--------|
| (1) Yes | (2) No |
|---------|--------|

16. Your present annual income, excluding your military pay:

- | | | |
|----------------------|--------------------------|---------------------------|
| (1) Less than \$4000 | (5) \$10,000 to \$11,999 | (9) \$18,000 to \$19,999 |
| (2) \$4000 to \$5999 | (6) \$12,000 to \$13,999 | (10) \$20,000 to \$21,999 |
| (3) \$6000 to \$7999 | (7) \$14,000 to \$15,999 | (11) \$22,000 to \$23,999 |
| (4) \$8000 to \$9999 | (8) \$16,000 to \$17,999 | (12) \$24,000 or more |

17. What is your best estimate of the annual monetary value of all your pay and benefits from your Guard or Reserve Service?

- | | | |
|---------------------|----------------------|----------------------|
| (1) Less than \$500 | (5) \$1100 to \$1299 | (9) \$1900 to \$2099 |
| (2) \$500 to \$699 | (6) \$1300 to \$1499 | (10) \$2100 or more |
| (3) \$700 to \$899 | (7) \$1500 to \$1699 | |
| (4) \$900 to \$1099 | (8) \$1700 to \$1899 | |

18. Your present family income from all sources (you and your spouse combined):

- | | | |
|--------------------------|---------------------------|---------------------------|
| (1) Less than \$4000 | (6) \$12,000 to \$13,999 | (11) \$22,000 to \$23,999 |
| (2) \$4000 to \$5999 | (7) \$14,000 to \$15,999 | (12) \$24,000 to \$25,999 |
| (3) \$6000 to \$7999 | (8) \$16,000 to \$17,999 | (13) \$26,000 to \$27,999 |
| (4) \$8000 to \$9999 | (9) \$18,000 to \$19,999 | (14) \$28,000 or more |
| (5) \$10,000 to \$11,999 | (10) \$20,000 to \$21,999 | |

19. Religious preference:

- (1) Jewish (2) Protestant (3) Roman Catholic (4) None (5) Other

20. Race:

- (1) American Indian (2) Caucasian (3) Negroid (4) Oriental (5) Other

21. Type of community in which you grew up:

- (1) Farm (2) Small town (3) Suburb (4) City

22. In what State (district, territory, or possession)? _____

23. Type of community in which you now live:

- (1) Farm (2) Small town (3) Suburb (4) City

24. Present residence: _____
STATE COUNTY CITY

B. RESERVE COMPONENT SERVICE— SATISFACTION AND IMPORTANCE RATINGS

There are two things to do in this part of the survey:

- (a) Indicate your level of satisfaction with each of the various topics stated.
(b) Rank the topics in terms of their importance to you.

SATISFACTION RATING. First, then, you are asked to express your satisfaction by drawing a circle around what you feel to be the appropriate number on the dotted line under each question. As you see, one end of the scale indicates satisfaction; the other end of the scale indicates dissatisfaction. You may choose any of the numbers, 1 through 7, to express the degree of satisfaction you feel. Do this for each of the nine items before you rank them in importance.

____ 1. How satisfying do you find your Guard or Reserve duty with respect to your assigned duties, and the freedom you have to carry them out?

1 2 3 4 5 6 7

Not at all About Very
satisfying overage satisfying

2. How satisfying do you find your friendships and your personal associations with others in your unit, both occupational and personal contacts—do you look forward to these associations during drill period and find them worthwhile to you?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

3. How satisfying do you find the economic benefits associated with the Guard and Reserve—benefits in the way of pay and retirement credit you have as a consequence of membership in the Guard or Reserve?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

4. How satisfying do you find the way the Guard or Reserve is regarded in your community—is it a good thing for you personally; are you looked up to because of your Guard or Reserve membership?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

5. What effect or influence does your Guard or Reserve membership have on your family life—does it cut into your family activity; is your wife in agreement with your Reserve Component duty?

1 2 3 4 5 6 7

Very bad About Very good
effect average effect

6. How do you feel about the effect that your Guard or Reserve membership has on your free time—does your Reserve Component obligation take away so much of your free time that it is bothersome to you?

1 2 3 4 5 6 7

Much About Little
effect average effect

7. What effect or influence does your Guard or Reserve duty have on your vacation time—do you have to sacrifice leave and vacation time because of your Guard or Reserve obligation?

1 2 3 4 5 6 7

Very bad About Very good
effect average effect

8. Is your employer's attitude toward your Reserve Component obligation satisfying to you—does he understand your situation and take measures to relieve any economic distress you might experience because of it?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

9. How satisfying a relationship is there between the skills necessary in your Guard or Reserve assignment and those in your civilian work—do you learn things in your Reserve Component duty that you can apply in your civilian job and vice versa; does Reserve Component duty offer you a welcome change?

1 2 3 4 5 6 7

Not at all About Very
satisfying average satisfying

IMPORTANCE RANKING OF PREVIOUS ITEMS. You have considered nine different things that related to your satisfaction with your Guard and Reserve service. Please look back over these nine items and in the blank to the left of each item, indicate the importance of that item to you. For example, if you thought that Question 3 (economic benefits) was most important to you, you would put a 1 in the space beside it. If the influence of Guard and Reserve duty on family life was second in importance, you would put a 2 beside it, and so on, until you had ranked each of the nine items in terms of importance; thus, the item that is least important to you would have the number 9 beside it.

10. Is there anything else you would add as being a satisfying element of Guard and Reserve service?

How would you rank it in comparison with the other nine? _____

**C. ORIGINAL ENLISTMENT AND REENLISTMENT
IN GUARD OR RESERVE**

1. If there had been no military draft, what is the probability that you would have enlisted in the Guard or Reserve? Circle one of the numbers from 0 to 100 on the line below to indicate the percent probability that you would have enlisted, assuming that the Guard or Reserve remained about the same as it presently is.

0	10	20	30	40	50	60	70	80	90	100

No, certain I would not have enlisted			(PERCENT PROBABILITY OF ENLISTING)					Yes, certain I would have enlisted		

2. You have been in the Reserve Components only a short time. From your experience so far, what is the probability that you will reenlist in the Guard or Reserve when your term of obligated service is over?

0	10	20	30	40	50	60	70	80	90	100

No, certain I will not reenlist			(PERCENT PROBABILITY OF REENLISTING)					Yes, certain I will reenlist		

3. If you circled any number from 0 to 40, please indicate why you have a tendency not to reenlist.

4. If you circled any number from 60 to 100, please indicate why you have a tendency toward reenlisting.



8. Suppose you were to have medical and dental benefits for yourself and your dependents while you were in the Guard or Reserve. *Considering only this item*, what is the probability that you would have enlisted in the Guard or Reserve if there were no military draft?

0	10	20	30	40	50	60	70	80	90	100

No	(PERCENT PROBABILITY OF ENLISTING)									Yes

9. Suppose you were able, because of being in the Guard or Reserve, to secure a home loan guaranteed by the FHA or the VA. *Considering only this item*, what is the probability that you would have enlisted in the Guard or Reserve if there were no military draft?

0	10	20	30	40	50	60	70	80	90	100

No	(PERCENT PROBABILITY OF ENLISTING)									Yes

10. Suppose you were to receive proficiency pay for an MOS or skills that were scarce or in short supply, or in which you demonstrated uncommon expertise because of the degree of your skill. *Considering only this item*, what is the probability that you would have enlisted in the Guard or Reserve if there were no military draft?

0	10	20	30	40	50	60	70	80	90	100

No	(PERCENT PROBABILITY OF ENLISTING)									Yes

11. Suppose you were allowed a Federal income tax exemption of \$1250 while you were in Guard or Reserve service. *Considering only this item*, what is the probability that you would have enlisted in the Guard or Reserve if there were no military draft?

0	10	20	30	40	50	60	70	80	90	100

No	(PERCENT PROBABILITY OF ENLISTING)									Yes

12. Is there any other economic incentive you would suggest that would have an effect on your attitude toward membership in the Reserve Components?

Considering only the item you have just suggested as being in effect for the Guard and Reserve, what is the probability that you would have enlisted if there were no military draft?

0	10	20	30	40	50	60	70	80	90	100

No	(PERCENT PROBABILITY OF ENLISTING)									Yes

13. Suppose now that you were able to combine any two of the above economic incentives into a "package" and were to have both of them in effect. Which two would you choose? Item _____, and Item _____.

Considering those two incentives to be in effect, what is the probability that you would have enlisted in the Guard or Reserve if there were no military draft?

0	10	20	30	40	50	60	70	80	90	100

No	(PERCENT PROBABILITY OF ENLISTING)									Yes

7. What do you think might be the best ways to recruit persons into the Guard and Reserve?

- (1) _____

- (2) _____

- (3) _____

8. You have been asked a lot of questions about your attitude toward the Guard and Reserve. Now, one final question: Are you going to reenlist in the Reserve Components for at least a year, when your obligated tour is over?

- (1) Definitely will *not* reenlist
- (2) Probably will *not* reenlist
- (3) Not sure
- (4) Probably will reenlist
- (5) Definitely will reenlist

This is the end of the survey. Thank you for your participation. Please return the survey immediately in the enclosed envelope. The postage has already been paid; just seal and mail.

If you have any additional comment, please write it below.

ADDITIONAL COMMENT:



3. Active Army Personnel

RESEARCH ANALYSIS CORPORATION

SURVEY SUPPLEMENT
FOR VOLAR-72 COST EFFECTIVENESS STUDY

The data from the following questions will be used to assist in the evaluation of the Modern Volunteer Army program. Please answer all questions carefully and completely. Any information you provide will not be identified with you personally, but will be used in summarized form together with information from other respondents for research purposes only.

1. Social Security No. _____ (please write in)

2. Please check your present location on the list below.

- _____ (1) Fort Benning
- _____ (2) Fort Bragg
- _____ (3) Fort Carson
- _____ (4) Fort Jackson
- _____ (5) Fort Knox
- _____ (6) Fort Ord

3. What is your grade? (check one)

- _____ (1) E1-E3 _____ (4) W1-W4
- _____ (2) E4-E5 _____ (5) O1-O3
- _____ (3) E6-E9 _____ (6) O4-O6

4. What is your status? (check one)

- _____ (1) RA _____ (5) Vol. indefinite
- _____ (2) AUS _____ (6) Obligated tour
- _____ (3) NG
- _____ (4) Reserve

5. How many years of active Army service have you had? (check one)

- (1) 0-3 years
- (2) 4-6 years
- (3) 7-9 years
- (4) 10 or more years

6. What is your present MOS? (first 3 digits only)

- Primary MOS
- Duty MOS

7. What is your age? (check one)

- (1) 17-21
- (2) 22-26
- (3) 27-31
- (4) over 31

8. What is your education level? (check one)

- (1) Grade school
- (2) Some high school
- (3) High school graduate
- (4) Some college
- (5) College graduate
- (6) Postgraduate study

9. What is your marital status? (check one)

- (1) Single
- (2) Married
- (3) Other (separated, divorced, widowed)

10. How many children do you have? (write in actual number; 0 if you have none)

children

11. Is this your first tour of duty in the Army? (check one)

- (1) Yes
- (2) No

12. If this is not your first tour of duty, did you reenlist since 1 January 1971? (check one)

(1) Yes

(2) No

13. What is your racial origin? (check one)

(1) White

(2) Black

(3) Other

14. Why did you enter the Army? (check one)

(1) Was drafted

(2) Entered primarily because of the draft

(3) Entered voluntarily, not primarily because of the draft

15. If you entered voluntarily, please indicate those items in the list below that influenced you. First select your most important reason and write 1 beside it. If you were influenced by more than one of the items, write 2 beside your next most important reason, and 3 beside your third most important reason. (Do not select more than 3)

(1) To learn a trade or skill that would be valuable in civilian life

(2) To serve my country

(3) Opportunity for advanced education or professional training

(4) Security of an Army career

(5) Opportunity for travel and excitement

(6) To become more mature and self-reliant

(7) Was unemployed and could find no other job openings

(8) Was influenced by my buddies who were in the service

(9) Was influenced by what I read or heard from advertising

(10) Was influenced by what I was told by recruiter

16. If you were in the Army on 1 January 1971, try to recall how you felt at that time about the possibility of reenlisting or extending your present tour. If you were not in the Army on 1 January 1971, please answer this on the basis of your feelings at the time when you entered the Army. (check one)

- (1) Definitely would not reenlist
- (2) Probably would not reenlist or extend my tour
- (3) Was not sure what I would do
- (4) Probably would reenlist or extend my tour
- (5) Definitely planned to reenlist or extend my tour

17. The following 17 general categories represent areas in which changes or improvements are being made in the Army. Please check those 7 that you consider most important to you. These will be the areas where you feel that improvements should still be made to make Army life more attractive to you. Please read through the entire list of 17 before making your selection of 7.

- (1) Barracks and Day Rooms (for example, providing partitions, new furniture, renovations, and so on, to improve living quarters)
- (2) Recreation and Special Services (for example, more athletic and recreational facilities and equipment, bus transportation to nearby recreational areas, etc)
- (3) Reducing Extra Duty Details (for example, civilians for KP, trash collection and grounds maintenance)
- (4) Work Conditions (for example, improving the suitability and convenience of the equipment and facilities in your work area, having interesting and meaningful work to do, etc)
- (5) Work Hours (for example, a standard 5-day work week, 8 hours per day, except in emergencies)
- (6) Religious Facilities (for example, improving facilities at your place of worship)
- (7) Family Housing (for example, adequate on-post housing or leased housing off-post)
- (8) PX/Commissary Facilities (for example, extended hours of operation, greater selection of goods, etc)
- (9) Food and Food Service (for example, renovated dining halls, more choice in menu, civilian bakery products, etc)
- (10) Training (for example, improvements in training aids, training areas or training methods, environment and adventure training)
- (11) Education Assistance (for example, to include on-duty and off-duty educational and civilian skill assistance)
- (12) Personal Liberties (for example, relaxation of regulations relating to hair length, dress, reveille, saluting, etc)

- _____ (13) Medical Services (for example, improving waiting room facilities, expanding the medical and dental service provided to dependents, providing out-patient social work service, renovating hospital buildings, etc)
- _____ (14) Post Services (for example, improved transportation, improved information services, expedited personnel actions, welcome and processing center, etc)
- _____ (15) Facilities for Handling Personal Problems (for example, expanded counseling services, support of alcohol, drug abuse, and racial harmony programs, revised IG procedures, etc)
- _____ (16) Army Image (for example, activities aimed at making the public more aware and appreciative of the Army's contributions to the development, history and defense of the nation)
- _____ (17) Professionalism (for example, to improve and foster a sense of unit pride, trust and loyalty such that an environment of mutual respect will exist in which soldiers can grow professionally, can demonstrate their skills and abilities and can be assured that their welfare, along with the successful achievement of their mission, is uppermost in the minds of their leaders)

18. The Modern Volunteer Army/VOLAR experiment at your post includes action items in some or all of the 17 general categories listed above. It is recognized that the program is at various stages of development at different posts. However, assuming that the MVA/VOLAR program actions will be completed, and in the light of the recently authorized pay increases, what would then be the likelihood of your reenlisting or extending your tour? (check one)

- _____ (1) Definitely would not reenlist or extend my tour
- _____ (2) Probably would not reenlist or extend my tour
- _____ (3) Am not sure what I would do
- _____ (4) Probably would reenlist or extend my tour
- _____ (5) Definitely would reenlist or extend my tour

19. Which of the two, the MVA program/VOLAR experiment actions or the pay increase would you consider the more important to you in influencing your decision concerning reenlistment or extending your tour? (check one)

- (1) The recent pay increase is more important to me than the MVA/VOLAR program
- (2) The MVA/VOLAR program is more important to me than the recent pay increase
- (3) Both are about equally important to me

20. If the recently approved pay levels are not sufficient to induce you to stay in the Army, please indicate what minimum increase in your base pay would induce you to do so. (check one)

- (1) I would stay for an additional 5 percent increase
- (2) I would stay for an additional 10 percent increase
- (3) I would stay for an additional 15 percent increase
- (4) I would stay for an additional 20 percent increase
- (5) I would not stay even with an additional pay increase

21. If you are not planning to reenlist or extend in the active Army, would you be likely to join the Reserve Components (Army National Guard or the Army Reserve)? (check one)

- (1) Definitely would not join RC
- (2) Probably would not join RC
- (3) Don't know what I would do
- (4) Probably would join RC
- (5) Definitely would join RC

22. Which three of the following might do the most to influence people to join the Reserve Components (Army National Guard or the Army Reserve)? (Please read through entire list before making selection)

- (1) Better economic benefits (in the way of bonuses, pay, life insurance, or retirement)
- (2) Education benefits for participation in the Reserve Components (such as guaranteed schooling or job training in return for time spent in the Reserve Components)
- (3) Allow and encourage Reserve Component units to spend training time in work on local community problems
- (4) Make as the only requirement for Reserve Component membership two or three weeks annually of rigorous, intensive training in one's specialty
- (5) Provide a program for the Reserve Components so that the individual can realistically plan a career

- (6) Develop a program so that the Guard or Reserve member suffers no monetary loss or loss of vacation time when taking time necessary for annual active duty training
- (7) Guarantee the Guard or Reserve member that his family will be properly cared for in the event of call-up for extended active duty
- (8) Allow greater personal freedom for Reserve Components personnel with respect to personal grooming and appearance
- (9) Develop a recruiting and public relations program to change the public attitude toward the Guard and Reserve so that the individual serving feels pride and is accorded respect for his Reserve Component membership
- (10) Provide for shorter term of enlistment in the Guard or Reserve
- (11) Have more social, athletic, and recreational activities organized around the Guard or Reserve units
- (12) Utilize the skills of the individual better and let him learn something he can use in civilian life
- (13) What else would you suggest as inducements to join the Reserve Components?

(Questions 23 and 24 apply only to enlisted men)

23. The Variable Reenlistment Bonus (VRB) is now being offered as an incentive to encourage competent soldiers to remain in the key combat branches. If you were entitled to receive an additional \$100 per month on qualifying for the combat arms, as well as the VRB, would you consider reenlisting in the combat arms? (check one)

- (1) Definitely would not reenlist in the combat arms
- (2) Probably would not reenlist in the combat arms
- (3) Am not sure what I would do
- (4) Probably would reenlist in the combat arms
- (5) Definitely would reenlist in the combat arms

24. From your own knowledge and experience, to what degree do you think the following programs are likely to influence young men of your background to enlist in the combat arms (infantry, armor, artillery)? Select the one you feel would have the most influence and write 1 beside it. Then select the next most important and write 2 beside it, and finally write 3 beside your third choice.

- MVA/VOLAR actions
- General pay increase
- Enlistment bonus (\$1000 each year for 3 years)
- Guaranteed choice of unit or geographical area

25. Do you have any suggestions that might be of help to the Modern Volunteer Army program? If so, please write them in below.

Annex B2
COST FACTORS

Annex B2
COST FACTORS

Annex B2 provides methods and cost factors employed in evaluating the cost and cost effectiveness formulae in Tables 1-31, 1-32, and 1-33, Chap. 1 of App B.

The gross cost per enlisted man per year is calculated by dividing the total gross cost of adding a particular incentive by the enlisted mandated strength. The net cost is defined in Formula B1.

$$\Delta c_i = \frac{C_i}{M} - \frac{fRT}{M} \left(\frac{p_i - p_o}{p_o} \right) \quad (B1)$$

where:

Δc_i = incentive net cost per enlisted man

C_i = incentive gross cost

M = enlisted mandated strength

f = ratio of reenlistment period (years) to enlistment period (years)

R = average number of personnel reaching ETS who reenlist with no incentive

T = net NPS annual training cost per man (by RC)

p_i = probability of reenlistment with specified incentive

p_o = probability of reenlistment with no incentives.

NET COSTS OF REENLISTMENT WITHOUT INCENTIVES

By Formula B1

$$\Delta c_o = \frac{C_o}{M} - \frac{fRT}{M} \left(\frac{p_i - p_o}{p_o} \right) \quad (B2)$$

In this formula Δc_i is replaced by Δc_o which is the net cost of reenlistment without incentives, and where:

$$C_o = 0$$

$$M = 371,617 \text{ for ARNG; } 224,950 \text{ for USAR}$$

$$f = \frac{1}{2}$$

$$R = 12,249 \text{ for ARNG; } 5,940 \text{ for USAR}$$

$$T = \$1923 \text{ for ARNG; } \$1880 \text{ for USAR}$$

$$P_i = 0$$

$$P_o = .19 \text{ for ARNG; } .15 \text{ for USAR}$$

$$R/P_o = 64,470 \text{ for ARNG; } 39,600 \text{ for USAR}$$

$$\begin{aligned} \text{For ARNG: } \Delta c_o &= \frac{64,470 \times 1923}{2 \times 371,617} \\ &= \frac{123,975,810}{743,234} \\ &= \$166.80 \end{aligned}$$

$$\begin{aligned} \text{For USAR: } \Delta c_o &= \frac{39,600 \times 1880}{2 \times 224,950} \\ &= \frac{74,448,000}{449,900} \\ &= \$165.48 \end{aligned}$$

The sources and derivations of the values used in the formula follow. To derive net NPS yearly training costs, T, average cost of pay and allowances per ARNG and USAR enlisted was computed.

The average pay and allowances per enlistee per year in ARNG and USAR units are based on data from the DA Budget Estimates for FY73 (which include the pay raise of January 1972). For this estimate, a 48 paid-drill status was assumed for IDT and an average number of 15.69 days of AT for ARNG and 14.80 days for USAR. The pay and allowances are given by the formula:

$$\left(\begin{array}{l} \text{Average pay} \\ \text{and allow-} \\ \text{ances per} \\ \text{enlistee} \end{array} \right) = \left(\begin{array}{l} \text{Pay per man} \\ \text{per IDT paid} \\ \text{drill} \end{array} \right) \left(\begin{array}{l} \text{Number} \\ \text{of IDT} \\ \text{paid} \\ \text{drills} \end{array} \right) + \left(\begin{array}{l} \text{Pay per man} \\ \text{per day for} \\ \text{AT} \end{array} \right) \left(\begin{array}{l} \text{Average} \\ \text{number} \\ \text{of days} \\ \text{of AT} \end{array} \right) \quad (B3)$$

$$\begin{aligned} \left(\begin{array}{l} \text{Average pay and} \\ \text{allowances per} \\ \text{ARNG enlistee} \end{array} \right) &= (\$13.67 \times 48) + (\$19.58 \times 15.69) \\ &= \$656.16 + \$307.21 \\ &= \$963.37 \end{aligned}$$

$$\begin{aligned} \left(\begin{array}{l} \text{Average pay and} \\ \text{allowances per} \\ \text{USAR enlistee} \end{array} \right) &= (13.79 \times 48) + (\$17.40 \times 14.80) \\ &= \$661.92 + \$257.52 \\ &= \$919.44 \end{aligned}$$

For incentive D1, 50 percent was applied to the \$963 and \$919, yielding \$482 and \$460, as the total gross costs per ARNG and USAR enlistee, respectively.

The estimates of base training costs per ARNG and USAR REP-63 for FY73 are based on data from the DA FY73 Budget Estimates.⁹⁰ It is assumed that the average length of ADT is 5.5 months. The costs are computed by the formula:

$$\left(\begin{array}{l} \text{Base} \\ \text{training} \\ \text{cost per} \\ \text{REP-63} \end{array} \right) = \left(\begin{array}{l} \text{Average} \\ \text{length} \\ \text{of train-} \\ \text{ing} \\ \text{(months)} \end{array} \right) \left(\begin{array}{l} \text{Monthly} \\ \text{pay and} \\ \text{allow-} \\ \text{ances} \end{array} \right) + \left(\begin{array}{l} \text{Monthly} \\ \text{cost of} \\ \text{sub-} \\ \text{istence} \end{array} \right) + \left(\begin{array}{l} \text{Monthly} \\ \text{cost of} \\ \text{travel} \end{array} \right) + \left(\begin{array}{l} \text{Clothing} \end{array} \right) + \left(\begin{array}{l} \text{Active} \\ \text{Army} \\ \text{costs} \end{array} \right) \quad (B4)$$

$$\begin{aligned} \left(\begin{array}{l} \text{Base training} \\ \text{cost per} \\ \text{ARNG enlistee} \end{array} \right) &= 5.5 (\$368.59 + 36.93 + 30.11) + \$180.24 + \$90.00 \\ &= \$2395.96 + \$180.24 + \$90.00 \\ &= \$2666.20 \end{aligned}$$

$$\begin{aligned} \left(\begin{array}{l} \text{Base training} \\ \text{cost per} \\ \text{USAR enlistee} \end{array} \right) &= 5.5 (\$355.42 + \$37.59 + \$25.15) + \$188.85 + \$90.00 \\ &= \$2299.88 + \$188.85 + \$90.00 \\ &= \$2578.73 \end{aligned}$$

The estimates of average pay and allowances and base training costs were then used in the formula developed to give net NPS yearly training costs (T) per ARNG and USAR enlisted man. The formula is:

$$T = \left(\begin{array}{l} \text{REP-63} \\ \text{training} \\ \text{costs} \end{array} \right) + \left(\begin{array}{l} \text{additional} \\ \text{REP pay} \\ \text{for 6 months} \end{array} \right) - \left(\begin{array}{l} \text{Average} \\ \text{cost per} \\ \text{reenlistee} \end{array} \right) \quad (B5)$$

$$\begin{aligned} \text{For ARNG, } T &= \$2666 + \$220 - \$963 \\ T &= \$1923 \end{aligned}$$

$$\begin{aligned} \text{For USAR, } T &= \$2579 + \$220 - \$919 \\ T &= \$1880 \end{aligned}$$

Potential loss figures for FY73 provided the pool for possible reenlistments. Losses for FY73 were computed as 64,470 for ARNG and

39,600 for USAR. These figures are the values for the factor R/p_0 , where p_0 is the probability of reenlisting without incentives.

The mandated strengths, M, are averaged figures from CORC for FY73. The enlisted strengths for the ARNG and USAR units include REPs.

Component	Mandated strength (M)
ARNG units	371,617
USAR units	224,950

The "probabilities of reenlistment" results samples from the RAC RC survey of personnel in their sixth year are as follows, with p_i being the probability of reenlisting.

Incentive	Probability of reenlisting, p_i	
	ARNG	USAR
0	0.19	0.15
D1	0.43	0.35
D2	0.32	0.25
D3	0.32	0.23
D4	0.32	0.28
D5	0.27	0.23
D6	0.41	0.33
D7	0.50	0.42
D8	0.45	0.40
D9	0.34	0.30
D10	0.48	0.42
D11	0.58	0.54
D12	0.64	0.56
E17	0.56	0.50
E18	0.70	0.64

Probabilities D1 through D12 are from Sec D of the Survey, and E17 and E18 are from Sec E.

EVALUATION OF COST OF REENLISTMENT FOR VARIOUS INCENTIVES

The cost of each incentive, D1 to D12 and E17 and E18, is evaluated in this section. First the question from the Survey is posed, followed by the formula that was developed for its costing, and then the calculations are performed for ARNG and USAR, separately.

D1. Suppose your pay for scheduled meetings and annual active duty training were increased by as much as 50 percent.

$$\Delta c_1 = 0.5 p_m - \frac{RT'}{2M} \left(\frac{p_1 - p_o}{p_o} \right) \quad (B6)$$

For this incentive only, the T formula (Eq B5) must be recalculated to assume a 50 percent add on to pay. The T' calculations follow:

ARNG: $T' = \$3594 + \$330 - \$1445$
 $= \$2479$

$$\frac{RT'}{2Mp_o} = \frac{64470 \times \$2479}{2 \times 371617}$$

$$= \$159821130 / \$159821130$$

$$= \$215.00$$

Substituting these values in Eq B6:

$$\Delta c_1 = \$482 - \$215.00 (0.43 - 0.19)$$

$$= \$482 - \$215.00 \times 0.24$$

$$= \$482 - \$51.60$$

$$\Delta c_1 = \$430.40$$

USAR: $T' = \$3450 \times \$330 - \$1379$
 $= \$2401$

$$\frac{RT'}{2Mp_o} = \frac{39600 \times \$2401}{2 \times 224950}$$

$$= \$95079600 / 44900$$

$$= \$211.33$$

Substituting these values in Eq B6:

$$\Delta c_1 = \$460 - \$211.33 (0.35 - 0.15)$$

$$= \$460 - \$211.33 \times 0.20$$

$$= \$460 - \$42.27$$

$$\Delta c_1 = \$417.73$$

D2. Suppose you were to receive a bonus for reenlistment of up to \$500 for a 3-year reenlistment in a Guard or Reserve unit.

$$\Delta c_2 = \frac{R}{M} \left[\$500 \frac{P_2}{P_0} - \frac{T}{2} \left(\frac{P_2 - P_0}{P_0} \right) \right] \quad (B7)$$

Since the wording of the survey suggests \$500, this amount was used in the computation.

$$\begin{aligned} \text{ARNG: } \Delta c_2 &= \left(\frac{64470}{371617} \times \$500 \times 0.32 \right) - \$166.80 (0.32 - 0.19) \\ &= (.17348 \times \$160) - \$21.68 \\ &= \$27.76 - \$21.68 \end{aligned}$$

$$\Delta c_2 = \$6.08$$

$$\begin{aligned} \text{USAR: } \Delta c_2 &= \left(\frac{39600}{224950} \times \$500 \times 0.25 \right) - \$165.48 (0.25 - 0.15) \\ &= (.17603 \times \$500 \times 0.25) - \$16.55 \\ &= \$22.00 - \$16.55 \end{aligned}$$

$$\Delta c_2 = \$5.45$$

D3. Suppose the Army were to guarantee that you would suffer no loss of income during annual active duty training; if the employer did not make up the difference between your salary and your military pay so that you suffered no loss, the Army would make up the difference.

$$\Delta c_3 = \$50 - \frac{RT}{2M} \left(\frac{P_3 - P_0}{P_0} \right) \quad (B8)$$

$$\begin{aligned} \text{ARNG: } \Delta c_3 &= \$50 - \$166.80 (0.32 - 0.19) \\ &= \$50 - \$21.68 \end{aligned}$$

$$\Delta c_3 = \$28.32$$

$$\begin{aligned} \text{USAR: } \Delta c_3 &= \$50 - \$165.48 (0.23 - 0.15) \\ &= \$50 - \$13.24 \end{aligned}$$

$$\Delta c_3 = \$36.76$$

D4. Suppose you were to receive educational benefits for Reserve Component service equivalent to \$500 for three years of Reserve Component service, benefits such as cancellation of student loans for services in the domestic interests of the Nation, the ability to take Armed Forces Institute course, monetary allowances to offset education expenses, and so on.

$$\Delta c_4 = \frac{R}{M} \left[\left(\frac{\$500}{3} \right) \left(\frac{p_4}{p_0} \right) - \frac{T}{2} \left(\frac{p_4 - p_0}{p_0} \right) \right] \quad (B9)$$

It is assumed that the educational benefits total \$500 and are paid in equal increments over three years.

$$\underline{\text{ARNG}}: \Delta c_4 = .17348 \quad (\$166.67 \times 0.32) - \$166.80 (0.32 - 0.19)$$

$$= (\$28.91 \times 0.32) - (\$166.80 \times 0.13)$$

$$= \$9.25 - \$21.68$$

$$\Delta c_4 = \$-12.43$$

$$\underline{\text{USAR}}: \Delta c_4 = .17603 \quad (\$166.67 \times 0.28) - \$165.48 (0.28 - 0.15)$$

$$= (\$29.34 \times 0.28) - (\$165.48 \times 0.13)$$

$$= \$8.22 - \$21.51$$

$$\Delta c_4 = \$-13.29$$

D5. Suppose you were allowed, as a member of the Reserve Components, to carry \$15,000 of Servicemen's Group Life Insurance (SGLI) at a nominal cost to you, say, \$3 to \$4 per month.

$$\Delta c_5 = - \frac{RT}{2M} \left[\frac{p_5 - p_0}{p_0} \right] \quad (B10)$$

This reflects savings only: reservist absorbs all insurance costs with no cost to the government. It should be noted that the DOD may suggest Army pay part of the total premium with the remainder to be paid by reserves. There would then be an added cost per man.

$$\underline{\text{ARNG}}: \Delta c_5 = \$-166.80 (0.27 - 0.19)$$

$$= \$-166.80 \times 0.08$$

$$\Delta c_5 = \$-13.34$$

$$\underline{\text{USAR}}: \Delta c_5 = \$-165.48 (0.23 - 0.15)$$

$$= \$-165.48 \times 0.08$$

$$\Delta c_5 = \$-13.24$$

D6. Suppose you had improved retirement benefits for yourself (e.g., retirement with pay at age 50), and benefits for your dependents if you were to die before retirement age.

$$\Delta c_6 = - \frac{RT}{2M} \left(\frac{P_6 - P_0}{P_0} \right) \quad (B11)$$

According to the report to the President on the Study of Uniformed Service Retirement and Survivors Benefits, Vol I,³¹ an actuarially reduced annuity beginning at age 50 "will be without long-range cost to the government."

$$\begin{aligned} \text{ARNG: } \Delta c_6 &= \$-166.80 \times (0.41 - 0.19) \\ &= \$-166.80 \times 0.22 \\ \Delta c_6 &= \$-36.70 \end{aligned}$$

$$\begin{aligned} \text{USAR: } \Delta c_6 &= \$-165.48 (0.33 - 0.15) \\ &= \$-165.48 \times 0.18 \\ \Delta c_6 &= \$-29.79 \end{aligned}$$

D7. Suppose you were to have medical and dental benefits for yourself and your dependents while you were in the Guard or Reserves.

$$\Delta c_7 = \$208 - \frac{RT}{2M} \left[\frac{P_7 - P_0}{P_0} \right] \quad (B12)$$

This is the same cost as for RA. Possible extra expenses to the Army are not included.

$$\begin{aligned} \text{ARNG: } \Delta c_7 &= \$208 - \$166.80 (0.50 - 0.19) \\ &= \$208 - \$51.71 \\ \Delta c_7 &= \$156.29 \end{aligned}$$

$$\begin{aligned} \text{USAR: } \Delta c_7 &= \$208 - \$165.48 (0.42 - 0.15) \\ &= \$208 - \$44.68 \\ \Delta c_7 &= \$163.32 \end{aligned}$$

D8. Suppose you were able, because of being in the Guard or Reserves, to secure a home loan guaranteed by FHA or the VA.

$$\Delta c_8 = \$30 - \frac{RT}{2M} \left(\frac{P_8 - P_0}{P_0} \right) \quad (B13)$$

It is assumed that the average loan guarantee cost per home is \$50 and that 60 percent of all men exercise the benefit.

$$\begin{aligned} \underline{\text{ARNG}}: \Delta c_8 &= \$30 - \$166.80 (0.45 - 0.19) \\ &= \$30 - \$43.37 \\ \Delta c_8 &= \$-13.37 \end{aligned}$$

$$\begin{aligned} \underline{\text{USAR}}: \Delta c_8 &= \$30 - \$165.48 (0.40 - 0.15) \\ &= \$30 - \$41.37 \\ \Delta c_8 &= \$-11.37 \end{aligned}$$

D9. Suppose you were to receive proficiency pay for an MOS or skills that were scarce or in short supply, or in which you demonstrated uncommon expertise because of the degree of your skill.

$$\Delta c_9 = \$10 - \frac{RT}{2M} \left[\frac{P_9 - P_0}{P_0} \right] \quad (\text{B14})$$

It is assumed that \$10 \approx 1/6 of average Army annual proficiency pay per man (\$617) \times fraction of strength receiving proficiency pay (1/10).

$$\begin{aligned} \underline{\text{ARNG}}: \Delta c_9 &= \$10 - \$166.80 (0.34 - 0.19) \\ &= \$10 - \$25.02 \\ \Delta c_9 &= \$-15.02 \end{aligned}$$

$$\begin{aligned} \underline{\text{USAR}}: \Delta c_9 &= \$10 - \$165.48 (0.30 - 0.15) \\ &= \$10 - \$24.82 \\ \Delta c_9 &= \$-14.82 \end{aligned}$$

D10. Suppose you were allowed a Federal income tax exemption of \$1250 while you were in Guard or Reserve Service.

$$\Delta c_{10} = \$240 - \frac{RT}{2M} \left(\frac{P_{10} - P_0}{P_0} \right) \quad (\text{B15})$$

The source of the cost factor, \$240, is CSM 70-150.⁹¹

$$\begin{aligned} \underline{\text{ARNG}}: \Delta c_{10} &= \$240 - \$166.80 (0.48 - 0.19) \\ &= \$240 - \$48.37 \\ \Delta c_{10} &= \$191.63 \end{aligned}$$

$$\begin{aligned} \underline{\text{USAR}}: \Delta c_{10} &= \$240 - \$165.48 (0.42 - 0.15) \\ &= \$240 - \$44.68 \\ \Delta c_{10} &= \$195.32 \end{aligned}$$

D12. Suppose now that you were able to combine any two of the foregoing economic incentives into a "package" and were to have both of them in effect--which two would you choose?

$$\Delta c_{12} = \sum_{j=1}^2 (\text{cost} / \text{man}) - \frac{RT}{2M} \left[\frac{P_{12} - P_0}{P_0} \right] \quad (\text{B16})$$

From the RAC survey, incentives D1 and D7 were most popular. For ARNG, the costs were \$482 for D1 and \$208 for D7, for a total of \$690. For USAR, the costs were \$460 for D1 and \$208 for D7, for a total of \$668.

$$\begin{aligned} \text{ARNG: } \Delta c_{12} &= \$690 - \$166.80 (0.64 - 0.19) \\ &= \$690 - \$75.06 \end{aligned}$$

$$\Delta c_{12} = \$614.94$$

$$\begin{aligned} \text{USAR: } \Delta c_{12} &= \$668 - \$165.48 (0.56 - 0.15) \\ &= \$668 - \$67.85 \end{aligned}$$

$$\Delta c_{12} = \$600.15$$

E17. Consider that three items in the listing that were most important to you are now in effect.

$$\Delta c_{17} = - \frac{RT}{2M} \left(\frac{P_{17} - P_0}{P_0} \right) \quad (\text{B17})$$

There would be no cost to the Government for these incentives.

$$\begin{aligned} \text{ARNG: } \Delta c_{17} &= 0 - \$166.80 (0.56 - 0.19) \\ &= \$-166.80 \times 0.37 \end{aligned}$$

$$\Delta c_{17} = \$-61.72$$

$$\begin{aligned} \text{USAR: } \Delta c_{17} &= 0 - \$165.48 (0.50 - 0.15) \\ &= \$-165.48 \times 0.35 \end{aligned}$$

$$\Delta c_{17} = \$-57.92$$

E18. Now consider the "package" of economic incentives you noted in D12, plus the three in question E17. Assume that all of these changes had taken place and were in effect.

$$\Delta c_{18} = C_{12} - \frac{RT}{2M} \left(\frac{P_{18} - P_0}{P_0} \right) \quad (\text{B18})$$

The cost C_{12} is the cost of D_{12} , and D_{12} is the cost of incentives D_1 and D_7 .

$$\begin{aligned}\text{ARNG: } \Delta c_{18} &= \$690 - \$166.80 (0.70 - 0.19) \\ &= \$690 - \$166.80 \times 0.51 \\ &= \$690 - \$85.07 \\ \Delta c_{18} &= \$604.93\end{aligned}$$

$$\begin{aligned}\text{USAR: } \Delta c_{18} &= \$668 - \$165.48 (0.64 - 0.15) \\ &= \$668 - \$165.48 \times 0.49 \\ &= \$668 - \$81.09 \\ \Delta c_{18} &= \$586.91\end{aligned}$$

A summary of the average annual costs per enlisted man for FY73 is given in Table B2-1.

Table B2-1

SUMMARY OF AVERAGE ANNUAL NET COSTS
PER ENLISTED MAN FY73

(Dollars)

Cost	ARNG ^a	USAR ^a
Inactive duty training	\$ 656	\$ 661
Annual training	307	258
Totals, IDT and AT	963	919
REP-63 training	2666	2579
Incentive costs		
Pay raise	430	418
\$500 reenlistment bonus	6	5
No loss of income (AT)	28	37
\$500 educational benefits	- 12	- 13
Low cost SGLI	- 13	- 13
Improved retirement benefits	- 37	- 30
Medical and dental benefits	156	163
Guaranteed home loan	- 13	- 11
MOS proficiency pay	- 15	- 15
Income tax exemption (Federal)	192	195

^a Minus sign indicates savings.

Annex B3
PROBABILITY COMPOSITION FORMULA DERIVATION

Annex B3

PROBABILITY COMPOSITION FORMULA DERIVATION

Consider the unit probability interval with $1 \geq p_x, p_y \geq p_o \geq 0$. Assume the individual reenlistment incentive probabilities are composed of the base probability, p_o , plus an additional amount representing the effect of the particular incentive. These two probabilities are considered disjoint. The result of adding two incentives is to produce a resultant probability, $p(x \cup y)$, composed of the base probability plus the resultant fraction of the remaining probability, $1 - p_o$, produced by the two incentives acting together. The separate net incentive probabilities in this latter segment of the probability interval represent an effectively larger probability and are given by $\frac{p_i - p_o}{1 - p_o}$. Then,

$$p(x \cup y) = p_o + (1 - p_o) \left[\frac{p_x - p_o}{1 - p_o} + \frac{p_y - p_o}{1 - p_o} - \frac{(p_x - p_o)(p_y - p_o)}{(1 - p_o)^2} \right]$$

if the $\frac{p_i - p_o}{1 - p_o}$ are assumed statistically independent or, equivalently, the joint probability of $\frac{p_x - p_o}{1 - p_o}$ and $\frac{p_y - p_o}{1 - p_o}$ in the interval is given or approximated by their product.

This equation reduces to the corresponding (top) combined probability given by Eq 4 in the section on Incentive Interaction in Chap. 2. The middle expression of Eq 4 is obvious, and the bottom easily derived in an entirely similar fashion, but initially using the probability of not reenlisting and subtracting the resulting expression from 1 to gain the corresponding reenlistment probability given by the bottom part of Eq 4.

Insofar as commutativity is concerned, consider $p_{i,j,k}$ for three arbitrary incentives $i, j,$ and k . Obviously $p_{i,j}$, equals $p_{j,i}$ from Eq 4, so that we need only consider the composite probability for three incentives. If that is independent of the order of the indices, the probability for any number of incentives must also be independent of the order (i.e., the indices are commutative) by the law of mathematical induction. Now if,

$$p_{i,j} = p_i + p_j - p_o - \frac{(p_i - p_o)(p_j - p_o)}{(1 - p_o)} \quad (B3-1)$$

$$\text{Then } p_{i,j,k} = p_{i,j} + p_k - p_o - \frac{(p_{i,j} - p_o)(p_k - p_o)}{(1 - p_o)} \quad (B3-2)$$

substituting Eq B3-1 for $p_{i,j}$ in Eq B3-2 and simplifying yields:

$$p_{i,j,k} = p_i + p_j + p_k - 2p_o - \left[\frac{p_i p_j + p_j p_k + p_k p_i - 2p_o(p_i + p_j + p_k) + 3p_o^2}{1 - p_o} \right] + \frac{(p_i - p_o)(p_j - p_o)(p_k - p_o)}{(1 - p_o)^2} \quad (B3-3)$$

But the form of Eq B3-3 is independent of the order of the three indices; that is, the indices could be interchanged in any order without changing the resultant formula. Hence $p_{i,j,k}$ is the same for any order of combining incentives and by induction Eq 4 can combine any number of incentives taken in any order, with the same result, simply by repeated applications of the formula--adding each incentive to the formula's prior result.

Annex B4
FACTOR ANALYSIS

Annex B4
FACTOR ANALYSIS

Given the correlation coefficient matrices of Tables 2-1, 2-2, and 2-3 in Chap. 2, it would be useful in assessing the interrelation of the various individual proposals if it could be shown that the reactions to the various incentives proposed by the survey reflect hidden or latent psychological factors. Such a theory was first developed to account for variations and similarities in intelligence test results. The related mathematical theory is abstruse but thoroughly documented.^{92,93,94} There are many variations of the basic factor analysis procedure; that employed here is the most straightforward mathematically. It employs the theory of matrix algebra to derive so-called eigenvalues and related eigenvectors, given the correlation coefficient matrices of Tables 2-1, 2-2, and 2-3. The resulting eigenvectors are then identified as the latent factors underlying the correlation matrices. Justification for the use of this mathematical theory is given in Harmon,⁹³ pp 154-9. The calculations involved are quite extensive and require the use of a large electronic computer together with sophisticated programs. In the present instance, the RAC CDC-6400 computer was employed together with programs developed at the University of California, Berkeley.⁹⁵

Three different sets of factors—one each for the ARNG, USAR, and IRR—were computed: Tables B4-1, B4-2, and B4-3 are the normalized eigenvectors or factors corresponding to the correlation coefficient Tables 2-1, 2-2, and 2-3 which are here again reproduced, together with the individual incentive reenlistment probabilities and their associated standard deviations. The related eigenvalues and determinations of the cumulative proportion of the total variance attributed to each eigenvector are also included on Tables B4-1, B4-2, and B4-3. One eigenvector, of which there

Table B4-1 (continued)

EIGENVECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13
D1	-.2861	-.0601	-.2949	-.4242	-.1816	-.1198	-.1947	-.3664	-.2453	-.5198	-.2421	-.0059	-.1978
D2	-.2662	.1510	-.5129	-.3695	-.2873	-.0788	.1552	.2799	.3552	.1971	.2829	-.0115	.0513
D3	-.2741	.3113	-.2278	.1212	.2724	.0933	.6414	-.3991	-.1663	.2367	-.1404	.0412	-.0625
D4	-.2749	.2084	-.0727	.0694	.6140	-.5526	-.3776	.1456	-.0257	.0657	.0578	.1175	-.0428
D5	-.2844	.3382	-.0144	.3830	.0161	.2928	.0025	.1721	-.0808	-.5759	.3719	-.2221	.1426
D6	-.2867	.1323	-.2084	-.0508	.0463	.6580	-.4143	.0921	-.0419	.2498	-.1724	.4167	-.1165
D7	-.2935	.0230	.2965	-.2369	.1877	.1440	-.0449	.0261	.3207	.0921	-.3277	-.6965	-.0037
D8	-.2815	.0247	.4836	-.0331	-.0838	-.1652	.3094	.0867	.4217	-.3077	-.1549	.4997	-.0523
D9	-.2801	.1760	.1065	.3684	-.5609	-.2964	-.0695	.2065	-.3295	.2438	-.3327	-.1161	-.0365
D10	-.2855	-.0003	.3970	-.1482	-.1897	-.0740	-.1236	-.4476	-.0779	.2682	.6297	-.0242	-.0649
D12	-.2755	-.3995	.1292	-.2626	.1528	.0381	.2006	.2835	-.4823	.0151	.0146	.0667	.5458
E17	-.2723	-.3979	-.2759	.4145	-.0654	-.0214	-.1807	-.3560	.3844	.0424	-.0344	.0353	.4478
E18	-.2411	-.5921	-.0945	.2430	.1020	.0584	.1470	.2110	-.0374	.0011	.1452	-.0826	-.6418

Table B4-2

SAMPLER SIZE= 395		USAR DATA FOR 13 EDITED ECONOMIC QUESTIONS												
		01	02	03	04	05	06	07	08	09	10	11	12	13
1	.3425	.3197												
2	.2456	.2909												
3	.2287	.2941												
4	.2715	.2934												
5	.2198	.2747												
6	.3224	.3132												
7	.4091	.3286												
8	.3922	.3395												
9	.3025	.3035												
10	.4143	.3191												
11	.5606	.3274												
12	.5025	.2992												
13	.6430	.3190												

CORRELATION COEFFICIENT MATRIX

	01	02	03	04	05	06	07	08	09	10	11	12	13
01	1.0000	.7800	.6805	.6963	.6696	.7266	.7040	.5826	.6670	.7223	.7195	.5727	.5911
02	.7800	1.0000	.7097	.7499	.7346	.7493	.6368	.5937	.7092	.7010	.6087	.5379	.5072
03	.6805	.7097	1.0000	.6751	.7395	.6774	.6301	.5847	.6962	.6670	.5568	.4813	.4523
04	.6963	.7499	.6751	1.0000	.7665	.7867	.7116	.6723	.7111	.7012	.6233	.5787	.5185
05	.6696	.7346	.7385	.7665	1.0000	.8225	.7058	.6546	.7080	.6662	.5476	.5329	.4380
06	.7266	.7493	.6774	.7867	.8225	1.0000	.7993	.6964	.7459	.7578	.6587	.5770	.5301
07	.7040	.6368	.6301	.7116	.7058	.7993	1.0000	.7880	.7132	.8212	.7531	.5915	.5863
08	.5826	.5937	.5847	.6723	.6546	.6964	.7880	1.0000	.6990	.7854	.6742	.5183	.5060
09	.6670	.7092	.6962	.7111	.7080	.7459	.7132	.6990	1.0000	.8022	.6360	.5847	.5308
10	.7223	.7010	.6670	.7012	.6662	.7578	.8212	.7654	.8022	1.0000	.7332	.6103	.5958
11	.5727	.5379	.5568	.6233	.5476	.6587	.7531	.6742	.6360	.7332	1.0000	.6608	.6333
12	.5727	.5379	.4813	.5787	.5329	.5770	.5915	.5183	.5847	.6103	.6608	1.0000	.7966
13	.5911	.5072	.4523	.5185	.4380	.5301	.5863	.5060	.5308	.5958	.6333	.7966	1.0000

EIGENVALUES

1	8.9716874	1.0758724	.6120780	.4334501	.3715950	.3149318
2	.2613406	.2249696	.2099131	.1714386	.1361639	.1285336
3	.0880257					

CUMULATIVE PROPORTION OF TOTAL VARIANCE

1	.69	.77	.82	.85	.88	.91	.93	.94
2	.96	.97	.98	.98	1.00			



Table B4-2 (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13
D1	.2924	.0166	.2868	.5285	.1939	.1124	.1993	.2983	.1794	.5609	.0255	.1256	.1273
D2	.2799	.2011	.3702	.2095	.0807	.3469	-.2860	.2073	-.4177	-.4439	.0609	-.2719	-.0173
D3	.2653	.2621	.2695	.1044	-.5572	-.5954	-.0507	.0506	.2013	-.1523	.1971	.0629	-.0299
D4	.2856	.1773	.1071	-.2428	.3248	.0585	-.5316	-.2493	.5923	.0216	-.0795	.0061	.0250
D5	.2795	.3073	.1324	-.3512	.1688	-.2976	.1942	-.0272	-.3638	.2251	-.5820	-.0771	.0053
D6	.2953	.1744	-.0269	-.1578	.3433	.0172	.3686	-.2457	-.1454	-.1877	.5106	.4715	-.0412
D7	.2628	-.0096	-.3906	.0603	.1993	-.1526	.3441	.1018	.2459	-.1920	.1132	-.6494	.1774
D8	.2709	.0485	-.5818	-.0591	-.0279	-.1134	-.4628	.3985	-.2714	.2301	.1706	.1797	.0806
D9	.2859	.1199	-.1003	-.1011	-.5150	.4511	.0727	-.4381	-.1000	.3641	.1455	-.2310	.0300
D10	.2960	.0004	-.2844	.1597	-.2470	.2922	.1871	.0975	.2104	-.3811	-.5164	.3985	.0113
D12	.2771	-.3817	-.1058	.3535	.1142	-.2129	-.1261	-.3432	-.1289	.0293	-.0321	-.0605	-.6485
E17	.2461	-.4509	.2409	-.5385	-.1155	.1417	.1399	.4442	.1284	.0359	.1042	-.0376	-.3267
E18	.2410	-.6070	.1647	-.0152	-.0210	-.1534	-.1064	-.2365	-.1643	-.0814	-.0441	.0817	.6434

Table B4-3

SAMPLER SIZE=	664	IRP	DATA FOR 13	EDITED ECONOMIC QUESTIONS
1	.2247	.2931		
2	.2217	.2943		
3	.2588	.3211		
4	.2637	.3046		
5	.2471	.3113		
6	.3167	.3313		
7	.3514	.3488		
8	.2825	.3251		
9	.2659	.3203		
10	.3339	.3360		
11	.3913	.3474		
12	.3606	.3195		
13	.4171	.3530		

CORRELATION COEFFICIENT MATRIX

	01	02	03	04	05	06	07	08	09	010	012	E17	E18
01	1.0000	.8218	.7782	.7268	.6971	.7288	.7033	.6991	.7128	.6923	.6882	.6760	.6531
02	.8218	1.0000	.8280	.7217	.7594	.7504	.7364	.6929	.7344	.7291	.6759	.6705	.6382
03	.7782	.8280	1.0000	.7506	.8044	.7790	.7421	.7799	.7966	.7555	.6881	.6951	.6443
04	.7268	.7217	.7506	1.0000	.7564	.7727	.7600	.7072	.7747	.7374	.7209	.6889	.6587
05	.6971	.7594	.8044	.7564	1.0000	.8308	.7756	.7816	.8043	.8034	.6401	.6511	.5857
06	.7288	.7504	.7790	.7727	.8308	1.0000	.8555	.8014	.8155	.8436	.7451	.7368	.6959
07	.7033	.7364	.7421	.7600	.7756	.8555	1.0000	.7890	.7746	.8702	.7609	.7445	.7082
08	.6991	.6929	.7799	.7072	.7816	.8014	.8090	1.0000	.8025	.8308	.7084	.7010	.6473
09	.7128	.7344	.7966	.7747	.8043	.8155	.8025	.8025	1.0000	.7932	.7072	.7082	.6497
010	.6923	.7291	.7555	.7374	.8034	.8436	.8702	.8308	.7932	1.0000	.7563	.7141	.6904
012	.6882	.6759	.6881	.7209	.6401	.7451	.7609	.7084	.7072	.7563	1.0000	.8228	.8880
E17	.6760	.6705	.6951	.6889	.6511	.7368	.7445	.7010	.7082	.7141	.8228	1.0000	.9078
E18	.6531	.6382	.6443	.6587	.5897	.6959	.7082	.6473	.6497	.6904	.8880	.9078	1.0000

EIGENVALUES

9.9110160	.8051950	.5068289	.3002238	.2746201	.2332164
.1856952	.1760530	.1614343	.1431741	.1257127	.1100814
.0627495					

CUMULATIVE PROPORTION OF TOTAL VARIANCE

.75	.82	.86	.89	.91	.94	.95
.97	.98	.99	1.00	1.00		



Table B4-3 (Continued)

EIGENVECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13
D1	.2677	-.0972	.5647	-.1161	-.2262	-.4460	-.4316	-.1591	-.1792	-.0009	-.3029	-.0307	-.0100
D2	.2720	-.1842	.4891	-.1992	-.2057	.2930	.1983	.2678	.1004	-.2036	.5239	.0464	-.0031
D3	.2816	-.2193	.2568	-.1482	.3502	.1389	.4364	-.0454	.2373	.5010	-.3654	.0517	.0232
D4	.2738	-.1804	.0717	.8478	-.0571	-.1764	.1860	-.2306	.1846	-.0890	.1113	.1291	.0352
D5	.2776	-.3221	-.1381	.0557	.1501	.4829	-.0705	-.3636	-.4712	-.2764	-.1481	-.2916	-.0159
D6	.2809	-.1024	-.2152	.0271	-.1891	.1879	-.3796	-.0157	-.1642	.6267	.3528	.3134	.0070
D7	.2854	-.0102	-.2836	-.0409	-.5033	.0548	-.0359	.0988	.4437	.0769	-.1635	-.5771	.0788
D8	.2780	-.1420	-.2886	-.3523	.2959	-.5228	.1058	-.3350	.0900	-.0890	.4217	-.1161	.0717
D9	.2823	-.1694	-.1284	.1729	.4526	-.1304	-.3007	.7082	-.0136	-.1257	-.0801	-.0662	.0637
D10	.2863	-.0837	-.3467	-.1961	-.3054	-.0689	.2164	.0885	-.0478	-.3139	-.3551	.6082	-.0392
D12	.2741	.4237	-.0125	.0555	-.0881	-.1752	.3904	.2084	-.5016	.1658	.0568	-.2402	-.4043
E17	.2718	.4570	.0211	-.0609	.2463	.2276	-.3133	-.1937	.3906	-.1649	-.0244	.1171	-.5224
E18	.2619	.5860	.0630	-.0366	.0882	.1256	-.0025	-.0536	-.0827	-.0524	-.0238	.0449	.7379

are 13 shown in each case, represents one factor. The 13 eigenvectors are arranged in order of decreasing importance. The algebraic sign prefixed to each element of a particular eigenvector is arbitrary insofar as the signs of all of the elements of a single factor are concerned. But the signs are extremely important for subsequent identification purposes as indicators of positive or negative correlation among the so-called loadings within each factor. These numbers—the elements of a particular eigenvector—are actually correlations between that factor and the corresponding incentives. Calculation will show that, as required, the sum of squares of these loadings equals one, for a particular factor, and that mathematically the separate eigenvectors are orthogonal.

Having derived the individual factors, which remember are the same as the eigenvectors, the major problem is then to identify what a particular factor represents psychologically. In other words, specifically what is the latent factor the particular eigenvector represents? The interpretation of a factor matrix such as that for the ARNG of Table B4-1 or indeed of any of the factor matrices, is seemingly arbitrary, necessarily argumentative, and somewhat speculative. The approach is first to concentrate upon the heavy loadings and by contrasting those loadings with opposite signs to suggest a common factor which would explain the particular sign structure and loading emphasis. In so doing it is important to remember that the signs of a particular eigenvector or factor are immaterial except insofar as they contrast separate loadings within that particular factor. Thus, for example, in Table B4-1, eigenvector 1 has all negative signs, whereas the same eigenvector for the USAR in Table B4-2 has all positive signs. This difference merely means that all the elements of each vector are of similar correlation, not that in the one case they are all anti-correlated while in the other case they are all positively correlated. The overall or gross sign structure pattern itself is of fundamental importance in interpreting and/or identifying the various factors.

Looking now at the ARNG eigenvector matrix of Table B4-1, we observe that the loadings for the first eigenvector are all approximately equal ($\approx .28$). This means that whatever the latent factor is, it appears

equally in all incentives. Furthermore, as indicated by the printout, that factor alone accounts for 70 percent of the total variance. This situation is common in factor analysis, and one usually interprets such a factor as a general or common factor. In our application it is most easily identified as a general proclivity (predisposition, propensity, inclination, leaning, or what you will) toward service in the RC. A man will not join the RC in a draft-free environment unless he feels to some degree attracted to such service. The basic element of all incentives is this common proclivity to serve in the RC. This same identification pertains for the ARNG, the USAR, and the IRR.

The second factor of Tables B4-1, B4-2, and B4-3 also has the same (but different from factor 1) identification for all three RC. Looking at the table for the ARNG we see that the second factor has strong (arbitrarily, positive) weighting with incentives D3 and D5 and strong (negative) weightings with numbers D12, E17, and E18. Once again the actual signs are immaterial. It only matters that incentives D2, D3, D4, D5, D6, D7, D8, and D9 are all of opposite sign to numbers D12, E17, and E18. In the case of the USAR, only the single incentive, D7, had the same sign as the last three or composite incentives. Whereas in the case of the IRR, all the individual incentives considered separately have opposite signs from the three composite incentive packages. To repeat, items D12, E17, and E18 are all composite incentives and are all heavily weighted with the same sign. Therefore factor 2 is identified as a preference for composite or mutually reinforcing incentive packages as against single incentives considered separately. This second factor accounts for a further 8 percent of the total variance, yet only some 10 percent of the effect of the first or common factor.

Turning to factor 3, observe the heavy weighting on incentive D2, contrasted with heavy weightings of opposite sign on incentives D8 and D10. Incentive D2 is an immediate benefit—namely a bonus—whereas D8 and D10 are deferred economic benefits. Indeed, the gross sign structure contrasts short-term benefits (numbers D6, D7, D8, D9, and D10) with the longer-term benefits of incentives D1, D2, D3, and E17. Therefore factor 3 is identified as reflecting a preference for immediate benefits. Once again, this third factor has the same identification for the ARNG, USAR,

and IRR. The interpretation agrees with most of the weightings, both in relative sign and magnitude, for all three RC. Factor 3 contributes an additional 4 percent of the total variance.

Returning to the ARNG, factor 4 has strong weightings on incentives D1 and D2 to be contrasted with strong weightings of opposite sign on incentives D5, D9, and E17. This pattern is interpreted to reflect a preference for major economic benefits in contrast primarily to the cost-free incentives; more generally, this is the pay factor. A similar interpretation pertains for the USAR, but not for the IRR.

Factors 5 and 6 for the ARNG are in some sense contrasting. In the case of factor 5, a strong loading on incentive D4 contrasts with a strong loading of opposite sign on D9; whereas in factor 6, a strong loading on incentive D4 together with a strong loading of the same sign on question D9 contrast with a heavy loading of opposite sign for incentive D6. In the base of factor 5, the distinction is between that of MOS proficiency pay and educational support. If it is assumed that the question response supports MOS pay, this factor then reflects a careerist attitude. Whereas in the case of factor 6, the loadings are interpreted as representing a strong support of educational benefits, coupled with a lesser desire for skill recognition, contrasted with a strong dislike of retirement benefits which would be of primary concern to a careerist but not to a short-termer. Thus factor 6 is interpreted as representing the preferences of a civilian—the attitude of a short-term enlistee who wants further education to prepare him for his civilian career.

Turning to the USAR, it is noted that the first four factors support the same identification as for the ARNG, but perhaps with a somewhat slightly different bias developing in the fourth factor. Factors 5 and 6 in the case of the USAR are more difficult to identify. Once again contrasting the heavily weighted elements with opposite signs, it would appear that incentive D6 could be explained as the attitude of an older careerist who wants support for his MOS but who is not attracted to recompense for loss of civilian pay for AT, since his military pay would probably exceed his civilian rate. Five is more difficult to identify; it appears to have a strong anti careerist-favoritism flavor, if we interpret the weightings as being strongly against incentives D3 and D9, and strongly

for D4 and D6. This factor is thus related to the civilian attitude of the ARNG, but has a somewhat different bias.

Turning finally to the IRR, whereas the first three factors agree in general with the interpretations for the ARNG and the USAR, the last three factors are entirely different.

Without going into the arguments, factor 4 is interpreted as reflecting attitudes of young civilians who want education but who are unconcerned about long-term benefits such as guarantees for housing. Factor 5 is interpreted as being the careerist attitude again, reflecting a desire for monetary returns and particularly reflecting the basic satisfaction with the proposed medical-benefits extension.

Factor 6 for the IRR is very difficult to interpret. Here heavy loadings of the same sign are given to incentives D1 and D8; that is, to increased pay and guaranteed home loans. Opposite signs with somewhat lower loadings are given to incentives D2 and D5, that is, to bonus and improved life insurance. The same sign is given to noneconomic incentives. If we assume that the positive sign in this case represents a positive attitude, then this factor represents a rejection of the longer-term career IRR benefits in favor of more immediate benefits, such as bonus, better insurance, etc. If, on the other hand, we interpret the minus sign as being a positive attitude, then this factor is very much favorably disposed toward increased pay and home loan guarantees, but is against bonuses, insurance, and cost-free incentives. It is believed that a preference for immediacy can be recognized here, but there is hesitation to identify what factor 6 really is.

Throughout this identification argumentation, it has only been attempted to identify the first six factors. In all cases, the first six factors together account for 90 percent of the total variance and therefore represent the primary or true principal factors accounting for the latest predilection of the respondents as reflected in the correlation coefficient matrix. Because of the poorer data for the IRR, interpretation has not been stressed beyond really the first three which are similar to the interpretations for the ARNG and the USAR.

To reiterate, it would appear that the first three primary factors, which are the same for all RC, are in order of importance: (a) proclivity

to the reserves, (b) a preference for reinforcing combination packages of incentives, and (c) a preference for immediate benefits. In the case of the USAR and the ARNG, the fourth principal factor appears to be pay, or, more broadly, major economic benefits in preference to cost-free incentives. Lastly, the fifth and sixth factors appear to be related to a careerist attitude and a civilian attitude for all components.

The lesson for the development of any incentive program to be learned from this factor analysis is that, first, future incentives should emphasize and contribute to a positive image of the reserves, thereby building upon the common predisposition to reserve service. In addition, they should prepare composite packages of reinforcing incentives and immediacy in recognizable benefits. Pay or general economic benefits are of course desirable, but they are, as we have seen, less cost effective. It would appear that no single incentive could be designed which would appeal both to the careerist attitude and the civilian attitude, since the two are distinctly at odds. Comparing the actual incentives proposed, we can see now why the cost-free incentives are so popular. They contribute to the image of and life in the reserves; they represent a combined package of reinforcing benefits; and they are recognized as of immediate benefit. That is to say, the proposed package of cost-free incentives supports the three most important latent factors for all three reserve elements, which in themselves account for a majority of 80 percent of the total variance. It would appear imperative in the self-interest of the reserves that they implement these cost-free incentives as soon as possible in order both to acquire and to retain the enlisted manpower they require.

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